THE LANCET.

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WALES AND ITS MEDICAL SCHOOL.

As was noted in our columns last week, a further stage in the controversy regarding the government of the Welsh National School of Medicine was reached at a meeting of the Court of the University of Wales at Llandrindod on Oct. 16th, when, on the proposition of Alderman WILLIAM GEORGE, a resolution was passed by 71 votes to 41 expressing the opinion that the School should be constitued as an independent school of the University and resolving that His Majesty in Council should be petitioned for a charter to bring this about.

The controversy is of some standing, and the salient points may not be within the recollection of all. In 1916 a Royal Commission, presided over by Lord HALDANE and composed of many distinguished educationists, unanimously recommended that the School should be a separate entity of the University of Wales. This course was not followed, and in 1921 the complete School was established as a part of the University College of South Wales and Monmouthshire at Cardiff, with special arrangements, including the formation of a board of medicine to administer the School under the Council and Governors of the Cardiff College. A draft supplemental charter to ratify these arrangements was submitted by the Cardiff College to the Privy Council, which rejected it, and affirmed the recommendations of the Haldane Commission. As the College did not agree, the Privy Council referred the question to the University, which through its Council recommended a school directly under the University and submitted a draft scheme to the Privy Council. Approval of such a scheme has now been obtained from the Court, the governing body of the University, at its Llandrindod meeting. The advocates of an independent school separated from the Cardiff College contend that thereby the School will be truly national, its prestige greater, its administration simplified, and its financial support larger and more assured. Those against separation from the College point out the advantages to medical staff and students of College association and stress the difficulties of separation as regards land, buildings, and money. A very animated discussion, which lasted most of the day, took place at the Llandrindod meeting. Members of the Court had already received a considerable amount of literature which included, as expressing outside opinion, statements from Sir CHARLES SHERRINGTON and Sir THOMAS LEWIS in favour of separation and from Prof. ADAMI against it. The arguments employed by the opponents to the policy of separation have been summarised in the frank statement circulated from the Vice-Chancellor of the University of Liverpool, and while admitting that on the constitution and conduct of universities he must be considered a first-class authority, we do not find the views of those who think with him broadly correct on general principles. Under the policy of separation it should be realised that the University connexion will be retained. Further, the apprehension that the other constituent Colleges of the University will be led to the burden of starting departments of anatomy and physiology out of rivalry to Cardiff seems to be far-fetched, for the number of students requiring courses on these subjects but not wishing even to enter the medical school of the University can hardly be large enough to warrant any dissipation of energy.

We have nothing but sympathy with the aspirations of Wales to establish a good medical school, and our sympathy is extended also to the Cardiff College which founded the School and naturally desires to keep it. A school of medicine, however, with its associated hospital organisations (and it is to be noted the Cardiff Royal Infirmary is in favour of separation) is too big a thing for a single university college to manage. The opinions and desires of the Royal Commission and Privy Council must carry weight. Association of staff and students cannot be forced; it will come naturally by work in institutions situated side by side. Only by an untrammelled and simplified administration can the School realise itself and develop on the best lines in the future. Granted goodwill on all sides, which should be forthcoming, disentanglement of mutual possessions should be a simple matter, especially as school properties are only held on trust by the Cardiff College and it has no power to deviate them from school purposes. We are of opinion that only by the constitution proposed by the University of Wales will the School undergo proper development and become not only a national but an international institution for medical education and research.

THE ÆTIOLOGY OF ECLAMPSIA.

PHYSICO-CHEMICAL methods are continually being applied to the medical sciences, and the harvest which is being reaped as a result of this application is of significantly ingravescent magnitude. It may be regarded as an axiom that every principle involving the inorganic world will ultimately be involved in the attempt at a rational interpretation of the organic. As long ago as 1690 HUYGENS, when studying the refraction of light through a crystal of Iceland spar, discovered the fact of plane polarisation. Over a century later ARAGO noticed that when a plate of calcite cut in a plane perpendicular to the axis was placed in the beam of light traversing a path between two crossed nicols, no rays passed the analyser. If, however, a plate of quartz were substituted for the calcite, part of the beam of light was transmitted. Evidently the plate of quartz had rotated the plane of polarisation which had been impressed on the light-waves during their passage through the first nicol. Some substances were found to rotate the plane in a clockwise, others in an anti-clockwise direction, and were consequently given the names dextrorotatory and lævorotatory. A more puzzling phenomenon was brought to light when it was found that certain liquids—e.g., turpentine—also produced rotating polarisation and that this power was not lost even when the substance was in the state of vapour. Clearly the phenomenon was one intimately connected with the structure of the individual molecules. Solutions of some substances likewise exhibit this phenomenon, and the fact that the degree of rotation is proportional to the concentration of solute at once gives the possibility of quantitative analysis to this principle. If two or more rotatory substances are in solution together, then the degree of rotation is the algebraical sum of their individual rotations when separately investigated in the same concentrations. The application of these principles, as is well known, has been of great industrial value in the determination of sugar and is also made use of extensively in the estimation of sugar in biological fluids.

We publish in this issue a paper by Dr. ALEXANDER HYND on some preliminary experiments on the nature of urinary protein, in which the principle of rotatory polarisation is invoked. Some extremely interesting facts have come to light. Investigation of the rotatory power of the urine from a case of eclampsia showed that this was considerably less lævorotatory than would have been expected from the amount of protein present and from the assumption that the protein present was serum albumin. This result led to a more careful and systematic investigation of the rotatory power of the carefully purified albumin obtained from the urines of 12 cases of albuminuria of pregnancy (without convulsions) and of 14 cases of eclampsia. Five cases of proteinuria not complicated by pregnancy were similarly studied. In all the cases of albuminuria of pregnancy without convulsions the specific rotation of the urinary albumin ranged from $-48{\cdot}9°$ to $-65{\cdot}7°$, with a mean value of $-55{\cdot}81°$, a figure which agrees extremely well with the mean value of the specific rotation of the albumin excreted by the five cases of proteinuria uncomplicated by pregnancy, viz., $-54{\cdot}27°$. Since the specific rotation of human serum albumin prepared by a process exactly similar to that employed in the purification of the urinary albumin gave a value which approximated closely to those given above, one is tempted to conclude that the albumin excreted in these conditions is serum albumin, a tentative conclusion which agrees with the commonly accepted view.

In the cases diagnosed as eclampsia, however, the rotatory power of the urinary albumin is in many instances much below the serum albumin figure and warrants a division of the series into a high and a low rotatory group. The specific rotation in the latter group varied between the limits of $-33{\cdot}92°$ to $-41{\cdot}61°$, with a mean value of $-38{\cdot}5°$; that in the former between $-49{\cdot}4°$ and $-58{\cdot}67°$, with a mean value of $-56{\cdot}37°$, a figure agreeing closely with that of serum albumin. Dr. HYND shows that cow's lactalbumin has a specific rotatory power of $-41{\cdot}17°$. The figure for human lactalbumin would probably be of like magnitude, and "it would seem," he says, "a significant fact that while in no case of proteinuria uncomplicated by pregnancy, nor in 'albuminuria of pregnancy' *without* convulsions, has an abnormally low specific rotation for the urinary albumin been observed, in a large percentage of the eclamptic cases the albumin excreted in the urine is considerably less lævorotatory than serum albumin. Experiments have been in progress to determine the nature of this low optically active urinary albumin, but owing to the difficulty of obtaining material suitable for such investigation, so far no definite conclusion has been come to, and further work will be necessary. The value of the specific rotation, however, suggests that the albumin may be lactalbumin." If this suggestion be accepted, "we have in certain cases of eclampsia an analogous condition to the lactosuria which not infrequently occurs in the late months of pregnancy or soon after labour, while corresponding to the symptomless albuminurias of pregnancy there exists the fairly common glycosuria of pregnancy. However, while the presence of lactose in the blood and its excretion in the urine would do little or no harm to a patient, the presence in the blood-stream of lactalbumin, which must be regarded as a foreign protein, might entail great danger." The suggestion is tentatively promoted that eclampsia is the symptomatic expression of a supersensitiveness to lactalbumin and is essentially of an anaphylactic nature.

We shall look forward with interest to the results of a more extensive investigation on the nature and origin of the urinary protein in eclampsia, and to the effect which these will inevitably produce on the fascinating suggestions made in Dr. HYND'S paper as the result of his preliminary and carefully conducted experiments

MALARIA AND AGRICULTURE IN BENGAL.

A REPORT[1] to the Government of Bengal, on malaria in relation to agricultural conditions in that province, by Dr. C. A. BENTLEY, Director of Public Health, raises questions of general interest no less than of vital local importance. The report urges that the Gangetic Delta depends both for prosperity and health on annual inundation, which leaves on the land a deposit of fertilising silt, and hinders anopheline breeding during many weeks of otherwise favourable conditions. Nevertheless the very circumstances which bring richness to the land tend to its decay; for with each annual flood the layer of fertilising silt, while deposited broadcast, yet reaches its greatest depth close to the river banks, so that natural embankments are there formed over which the normal annual flood finally fails to escape. During flooding, silt is also deposited in the river beds themselves, whence however it is ordinarily scoured out, for the now clarified flood water drains back into them as the river level falls. If this process do not occur, such waterways are left, in the dry season, choked, stagnant, and dead. This condition, as would be expected, is most advanced about the apex of the Gangetic Delta where land is extensively derelict, wild and cultivated vegetation indicate soil drought, and malaria is excessive. It is, moreover, held that this natural decay of the Bengal river system is accelerated by embanking the rivers, and is intensified by the building of thousands of miles of raised roads and railways; for—and the point is stressed—embankments of this kind, fallow land, and malaria are all more abundant in Western than in Eastern Bengal; thus it is definitely concluded that such embanking is the cause both of the existing agricultural depression and of malaria. Among examples is cited the Hoogly district, where embankment of the left or eastern bank of the Damodar has prevented the river from spilling eastwards across that district into the Hoogly river, the westernmost of the stream of the Gangetic Delta. Crop experiments have shown that the average out-turn of the rice plant is greater by half when irrigated by Damodar water than when not so irrigated, while the Hoogly district is now one of the most malarious in the province, to which condition is also largely attributable the fact that its population in 1921 was less than in 1872. Further, comparatively healthy Eastern Bengal, which is yearly flooded, has, relative to area, 28 per cent. of the railway and 6 per cent. of the road mileage of the more malarious Western Bengal. It is therefore argued in the report that, to prevent extension of malaria in the Delta, normal inundation must be encouraged by maintenance of channels and spill areas, and by absolute prohibition of all embankments, including those of railways and roads, until these can be constructed without obstructing natural irrigation and drainage. In the meantime the effects of embankments upon the water table should be investigated and a survey should be made of malarial distribution, of agricultural conditions, and of the various watercourses, drainage maps of the district being prepared.

These recommendations lead naturally to a scrutiny of the proffered evidence that embankments of these

[1] Calcutta: Bengal Secretariat Book Depôt. 1925. 4s.

various kinds have indeed caused the ills attributed to them. That the actual process of embanking may induce temporary malarial outbreaks is unquestionable; that completed embankments have permanently altered the health of Bengal is admittedly difficult to prove, or disprove; but the evidence offered for their harmfulness appears too little convincing. It is, of course, clear that embankments for rivers, roads, and railways will be built preponderatingly upon those upper parts of the Delta which have nearly, or actually, become raised above ordinary flood level, and where flooding is felt to do more economic harm than good. These higher tracts may be taken as evidence that land is permanently emerging from the waters and that hydraulic conditions are being radically altered. It will surely be felt by many, in spite of the facts cited in this Report, that there is still no answer to the following question: "To what extent is this natural alteration, with its concomitant agricultural and hygienic deterioration, aggravated by man's efforts?" There are undoubtedly those who are satisfied that there is another side to the whole question. Witness the Damodar embankment, just cited, and to which the ill-health of the Hoogly district has been referred. No one who has looked out daily for months upon a pleasant midstream island in a big Indian river and has awakened one monsoon morning to unbroken wastes of rushing water—a deep channel where palms and huts stood the evening before—can ever leave out of count the well-established vagaries of rivers on Indian alluvial land; so that it is difficult to reject as ill informed the definitely held opinion that the main current of an unembanked Damodar river, diverted in the usual freakish manner, might readily follow the example of other well-known rivers, scour out one of its numerous spill channels across the few miles of intervening Hoogly district, and enter the Hoogly river above, instead of below, Calcutta. The existing river bed could not hold both waters; the damage entailed to the city and port of Calcutta none can estimate. Bonification, carried to its greatest success in Italy, is defined in the Report as the regulation of all surface waters, the improvement of soil fertility, the cultivation of crops best suited to local conditions, and the increase in numbers and prosperity of the population. Dr. SWELLENGREBEL, in an appendix to the report to the League of Nations of its Malaria Commission upon a European tour of investigation in 1924, describes Italian *bonificazione* as comprising the measures of social hygiene taken to improve the hygienic condition of the inhabitants, to increase their well-being and ultimately their resistance to malaria; sanitary ends are gained by economic measures. He adds, however, that the problem of housing is given constant attention, and that the difference between districts completely "bonified" and those untreated or only partly so was much more evident in the condition of human habitations than in the amount of anophelism, which was not appreciably different. The value of housing is in the forefront of the Malaria Commission's representation. The Commissioners class as "primary," and always indispensable, antimalarial measures those limited to malaria-infected individuals and the houses in which they dwell, and they include among them the discovery and full treatment of all cases of malaria by house-to-house inspection, and the instruction of inhabitants in their homes as to where mosquitoes are to be found, how they are to be caught, discouraged, and repelled.

Full of promise, then, for Bengal, as Dr. BENTLEY notes, is RAI GOPAL CHUNDRA CHATTERJI BAHADUR'S movement for the formation of coöperative anti-malarial societies; and more than good wishes are his due in an uphill fight. Based largely, no doubt, on experience of Algeria, where a pestilent, avoided region has become a reasonably healthy one of intensive cultivation with scarce room for another blade of grass, as is picturesquely said, the view is becoming evident in French literature that the best way to exterminate malaria is to improve well-being, and that good administration can pre-eminently aid this. It is, however, well to keep in mind the extraordinary effects produced in the Malay Federated States—associated with the name of Sir MALCOLM WATSON—which have followed intensive study of the conditions which favour the breeding of the particular anopheline species locally implicated in malarial transmission. In agreement perhaps with Colonel FRY'S report, written in 1914, that, since all Bengal anopheles have similar breeding habits, identification of the species acting as optimum host is merely of academic interest, the present report holds no mention of "species sanitation." It is becoming widely held elsewhere that identification of implicated species promises well for future preventive work. No later work on these lines than FRY'S is traceable in Bengal, and it is difficult to believe that species with identical habits are implicated in the different conditions of Western and Eastern Bengal. FRY dealt only with Western Bengal and wrote "It would appear that different factors concerned in malaria production and maintenance . . . inextricably overshadow each other." It follows that only by future patient extrication of the tangle can that scientific lead be given to the administration without which its efforts at social and hygienic amelioration must prove risky, expensive, and, not improbably, futile.

SURGICAL DEVOLUTION.

IN his Presidential Address to the Section of Surgery of the Royal Society of Medicine, which we report on another page, Sir LENTHAL CHEATLE was both stimulating and inspiring. He took for his text the thesis: Surgeons in London are in danger of losing their place as leaders of surgical thought—and, without affirming or denying it, he admitted danger and suggested how to meet it. Real leaders in surgical thought are necessarily few in number and they may crop up anywhere. The London routine of surgical training can hardly alter one way or the other what is essentially a biological phenomenon, but Sir LENTHAL CHEATLE touched the spot when he said that the leaders of surgery, if they are to lead, must always have before them the ideal of investigating. Surgical technique in particular cases—e.g., appendicitis—has been developed to such a point that nine out of ten patients can be operated upon nearly as efficiently by the less experienced as by the more skilled surgeon. Much of what may be called routine surgery is done in present circumstances by operators in outlying districts who may be general practitioners. This is the natural result of the opportunities for surgery offered in the schools to house surgeons and others, but the operating practitioner does no more than follow accepted surgical teaching. Leadership involves work on problems more difficult than these and something more than mere technique. The surgical leader must be a thinker and an investigator. Sir LENTHAL CHEATLE believes that surgical specialisation has been carried too far, and in this he has the support of a brother-surgeon who holds that patients should only be segregated out of the general surgical ward so long as interest is focused on the particular region

or the particular morbid condition; investigation being complete and the lines of treatment settled, they resume their beds in the general ward. The good general surgeon is probably now in every way as good as he has ever been, and it is not difficult for him to acquire some special things, such as cystoscopic technique, whereas the specialist can only extend the area of his special subject with difficulty. Happily, the standard of work at a teaching hospital is constantly kept up not only by the collaboration of colleagues, but by the insistent criticism of students. The surgeon, like any other craftsman, may be inclined to magnify the importance of technical ability, and technique is more important in surgery than it is in any other faculty, but the judgment born of experience and wide contacts is as important for the right handling of the individual case as it is for the advancement of the science. One who is only a clinical surgeon and nothing more cannot hold a position as leader in his profession. We are sure that Sir LENTHAL CHEATLE'S address will do good. He has put into measured words thoughts which have been exercising the minds of surgeons for many years past, and if his remarks should lead to some searching of heart, nothing but good can come from it.

AN ENCYCLOPÆDIA OF INDUSTRIAL HYGIENE.

THE first two brochures have reached us of the "Encyclopædia of Industrial Hygiene," which is being brought out under the title Occupation and Health by the International Labour Office at Geneva. The object of the work is to disseminate as widely as possible the information required for the detection of occupational diseases, to indicate the steps to be taken for their cure and prevention, and to lay down general principles for the better protection of the workers. It is intended not merely for industrial physicians, who must find it a standard work of reference, but for workers, manufacturers, and their organisations. Consideration is given to the work, the worker, and his environment. The work is analysed according to process and risk. The worker is envisaged in relation to the products with which he is in contact. Environment is concerned with such matters as ventilation, lighting, dust removal, and sanitary accommodation. The importance of such an international publication can hardly be overestimated to-day, when matters of industrial legislation, aimed at establishing health in occupations, are so much to the front in every civilised country. The list of expert collaborators who are engaged upon its production, chosen from France, Britain, Austria, Belgium, Germany, Italy, United States, Switzerland, Holland, Sweden, Spain and Poland, is sufficient to vouch for the authenticity of the articles which are all submitted for comment to a correspondence committee before issue. The encyclopædia is appearing in two languages, French and English. The first two brochures contain 12 articles dealing with definite industrial poisons, such as mercury, carbon monoxide, phosphorus, and benzene; one concerned with hatters furriers' processes is well illustrated, and each contains a useful bibliography. The price (£1 12s.) charged for the total issue, which promises to be an extensive work, is such as should appeal to a wide circle of readers. We tender our congratulations to the International Labour Office for undertaking this useful and important piece of work.

Annotations.

"No quid nimis."

THE ECONOMIC ASPECT OF SMOKE.

AT the Plymouth Gas Conference on Oct. 21st Dr. R. Veitch Clark, medical officer of health for Manchester, made an important pronouncement on the conservation of human energy from the point of view of smoke pollution. The gloom which envelops the great industrial belts of England and Wales during the winter months is due very largely to pollution of the atmosphere with the products of combustion of raw coal, and even in the height of summer the Manchester sun records only slightly exceed the winter records of such places as Southport, Brighton, and Eastbourne. Dr. Clark does not claim that the abolition of the smoke evil will abolish even one disease, but he does insist that it will greatly diminish the incidence of disease and produce enhanced efficiency in adult life. There are few who do not react to the depression of atmospheric dinginess, and the Industrial Fatigue Research Board has demonstrated the diminished output of work when lighting conditions are bad. Dr. Clark, as did our Berlin correspondent last week, drives his attack home through the atmospheric envelope to the personal envelope, remarking that ultra-violet rays will not pass through clothing. He regrets that man, particularly male man, does not adapt his costume more sensibly to climatic conditions. Prof. J. B. Cohen and Dr. A. G. Ruston, in a new and enlarged edition of their book on "Smoke,"[1] think that the effect of smoke on health will have to be clearly proved before the Ministry of Health, for example, will take any steps. Without entering into the question of health, however, save to include a rather unsatisfactory appendix containing certain statistics by Dr. Ascher, of Hamm, Westphalia, these authors have brought forward a startling indictment of smoke in their account of the ravages for which it is responsible on vegetation, metal work, and masonry. The fact that the crumbling of the House of Commons is due to the effects of products of inefficient combustion of coal in London air may perhaps bring legislation a little nearer. Domestic soot is particularly deleterious in its effects on vegetation, for the high percentage of tar it contains makes it more adhesive, and soot affects the growth of plants by blocking up the stomata and impeding transpiration, by reducing the intensity of sunlight absorbed by the leaves, and by the corrosive action of the acid it contains. The effect of soot on crops has been studied both in the laboratory and in carefully planned field experiments. One crop of lettuces, for example, grown in the centre of the industrial part of the city of Leeds, was only a quarter of that obtained in an outlying agricultural area. By special methods these authors showed that the smoke cloud over the industrial part of Leeds shuts out 40 per cent. of the daylight, and with regard to the effect of soot on the laundry bill they quote figures which indicate that a big town in the north of England would save about £250,000 a year in household washing expenses if only the city smoke were eliminated. The deleterious effects of smoke on masonry and metal work are due principally to the presence in the air of towns of sulphuric and sulphurous acids derived from the coal. The action of such acids upon all stones having lime or magnesia in their composition is rapid and progressive. Striking illustrations of this are shown in this book, including photographs of portions of the masonry of certain public buildings. In this connexion Sir Frank Baines has asserted that H.M. Office of Works would save at least £120,000 per annum if the air in towns were as clear and as pure as in rural districts.

[1] Smoke: A Study of Town Air. New and enlarged edition. London: Edward Arnold and Co. 1925. Pp. 108. 8s. 6d.

Prof. Cohen and Dr. Ruston have certainly collected an imposing list of crimes for which smoke is responsible, and it is surely a matter which affects the public weal so closely that interference by the authorities, even although this means tampering with the home fires, would be a thoroughly justifiable procedure. Dr. Cox has, however, been quoted as saying that it may require the death from fog of three Cabinet Ministers before any action is taken.

PROGNOSIS IN BILATERAL BREAST CANCER.

WE reviewed last week Mr. Grey Turner's incitement to encouragement in cancer surgery, and no one reading his book can take a gloomy view of surgical intervention for tumours in many localities. There is a widely held opinion that when cancer involves both breasts the prognosis in regard to cure, or even marked prolongation of life, by operation is almost hopeless. This outlook is combated by Dr. Clarence A. McWilliams,[1] who records the results in 98 cases of bilateral breast cancer, of which 87 cases had cancer developing consecutively and 11 cases in which cancer developed simultaneously in both breasts. He calculates, from grouped statistics, that of patients with operable cancer in one breast 5 per cent. will develop cancer in the remaining breast. Of the 11 cases of simultaneous cancer only one lived longer than four years after operation. But of the 87 consecutive cases 54 per cent. after the first operation and 24 per cent. after the second operation lived for five years. McWilliams considers, from these figures, that in the simultaneous cases the prognosis is practically hopeless, but in the consecutive cases very fair. In the consecutive cases he regards the growth in the second breast as primary, and not an extension or a metastasis from the growth in the first breast, and gives good reasons for his belief.

NATIVE DIETS.

THE problems of diet are still very much under discussion at the present day, and among the many theories put forward to explain this or that defect in the health of civilised man is the superficially attractive one that his diet has also become much too civilised. The alleged freedom of the primitive tribes from cancer, for example, is ascribed by enthusiasts variously to their simple foods, to the small amount of cooking employed, or to the absence in certain cases of meat in their dietaries. In this respect information as to what the primitive tribes actually do eat and what effect, if any, their diet has upon their general health and well-being is certainly needed. A recent discussion on native diets reported in the *Kenya Medical Journal* (August, 1925) brings out many interesting points. Dr. C. J. Wilson, who opened the discussion, attempted to answer the two principal questions brought up by this subject—namely, What do the natives of Kenya eat? and What ought they to eat? The natives in the reserve live upon a diet described as being on the border-line of food deficiency, being preponderant in carbohydrates with meat in some form as, at any rate, an occasional part. Such a low diet appears to render the native more susceptible to disease than the well-nourished individual and unable to cope with hard manual labour. In connexion with the Carrier Corps (the native labour employed during the war), in certain of the native prisons and with some business concerns employing native labour, actual diets have been worked out and adjusted so as to get the best results. One such diet which proved very satisfactory consisted of 2 lb. of mealie meal daily, 2 lb. of chiroko beans weekly, 2 lb. of meat weekly, and one lemon weekly. The difficulty facing anyone dealing with natives whose staple food consists largely of maize is to get sufficient protein of biological value into the daily diet since the proteins in maize are very low in the scale—2 lb. of maize, for example, contain excess of carbohydrate and only about half of what is conceived to be the minimum amount of protein according to European standards. The difficulty immediately arises that most of the known facts on diet have been worked out on Europeans or Americans. Does the native need meat? In the opinion of one of the subsequent speakers all the tribes need meat if they are going to keep fit for hard work, and he quoted in support of this contention the fact that a certain company giving the diet detailed above to the natives in its employ was quite sure that "their boys worked better with it." Another speaker stated that every contractor for some railway construction work "gave his boys meat because it cheered them up," and on a liberal diet containing meat there was stated to be an improvement in health and in capacity for work. It may be argued that the diet to which a native is accustomed is the best diet for him, but the experience of the acting Chief Native Commissioner, Colonel Watkins, who took part in the discussion, was that the native must be trained to take a better diet, for this, it was urged, would make him more adaptable to changes in surroundings and climate and more resistant to disease. The Chairman, closing the discussion, brought forward some significant figures which showed that on a rough estimate the result of an improved diet at a Carrier Corps hospital was to lower the death-rate from 33 to 3 per cent. It will be interesting to see if the improved diets of the primitive tribes will in any way approximate to the simple diets to which civilised man is sometimes advised to return.

THE TARGOWLA REACTION FOR SYPHILIS.

MOST of the modifications made in the original technique of the Wassermann reaction have had simplification as their object, but even the simplest of the reputable variations is beyond the time and experience of the general practitioner. If, then, a simple test for syphilis could be found its value for the busy practitioner would be great, but though there have been many such suggested they have all been rejected as useless. The reaction introduced by Targowla in 1923 did not apparently receive much attention in this country, but an investigation of its value in 200 cases of syphilis by Bernard and Ruelle[1] has produced some striking results. This reaction depends upon the curious fact that mixture of normal cerebro-spinal fluid and "elixir paregoric" produces a colloidal suspension, while with certain pathological fluids a precipitate is formed. The "elixir paregoric" of the Belgian Pharmacopœia contains tincture of opium, 50 g.; benzoic acid, 5 g.; camphor, 3 g.; anethol, 2 g.; and 70 per cent. spirit, 940 g. Fifteen drops of this are mixed with five drops of water and 15 drops of cerebro-spinal fluid in a test-tube, while a control tube contains 20 drops of water and 15 drops of elixir. At the end of 24 hours there is either more or less precipitation in the first tube (a positive reaction), or no precipitate at all (a negative reaction). The positive reaction is said to be given in cases of cerebro-spinal syphilis and in disseminated sclerosis only, and in 100 cases investigated by Targowla the parallelism between this reaction and the Wassermann reaction was complete in 91 cases. In six of the remainder, all cases of undoubted syphilitic infection (general paralysis, meningitis, and congenital syphilis), the Targowla reaction was positive and the Wassermann reaction negative. In the other three cases the Wassermann was positive and the Targowla reaction negative. Bernard and Ruelle investigated this reaction on 200 cases of syphilis in all its stages, and found that the results of the Wassermann and the Targowla reactions were discordant in only 28 cases. In 14 of these the Targowla was positive and the Wassermann negative; all but three of these 14 cases had definite symptoms and signs of cerebro-spinal syphilis with a history of infection. Of the other 14 cases, which gave a negative Targowla and a positive Wassermann, nine were cases of general paralysis

[1] Annals of Surgery, July, 1925, p. 63.

[1] Bruxelles Médical, Sept. 13th.

or tabes; one had suffered from an acute syphilitic meningitis (during which time the Targowla reaction was positive), while the four remaining were without any signs or symptoms whatever. These authors therefore claim that not only is the parallelism of this simple test with the Wassermann reaction sufficiently striking to make it of great value, but also that in cases of cerebro-spinal syphilis other than general paralysis or tabes it is actually even more reliable. Difficult biochemical and pathological problems immediately arise if these results can be repeated by other observers, but the very simplicity of the reaction certainly seems to warrant its close investigation in this country.

DENTAL PROPAGANDA.

THOUGH pain will often recall the prodigal patient to his dentist, the population at large suffers dental disease more or less gladly because it produces no discomfort comparable with the harm it is causing. The insidious nature of the damage gives a real and special importance to public instruction on the care of the teeth. What form this propaganda should take may be in question, but the necessity for it is beyond doubt. In an address on the subject at the British Dental Hospital on Oct. 15th, Dr. James Wheatley rightly laid more stress on the cultivation of hygiene than on preventive dentistry, and emphasised the need for providing an incentive to right living as well as instruction on how to achieve it. Knowledge is one thing, conduct is another. In particular, he believes, it is necessary to find an incentive for the adolescent who has thrown off the control of parents without accepting the bonds of purpose or of any real object other than pleasure. To excel in sport and to excel in beauty are aims which can be legitimately exploited, and it must be more generally realised that health is a thing to be proud of and that disease is usually the reverse. The ambitious scheme for widespread propaganda put forward by the Dental Board has already been described in our columns.[1] Dr. Wheatley welcomes the action of the Board as likely to educate the public in oral hygiene, but is concerned that it should fit in with the general scheme of public health education. The influence of the Board might be very valuable in a central propaganda organisation loosely attached to the Ministry of Health which should coördinate and assist the work of the health services and voluntary organisations; but in direct public propaganda its influence would be less useful. Dental propaganda, he considers, should be an inseparable part of general health propaganda; it must continue over many years and can only be effectively undertaken by those bodies which have access to the homes and schools. Its presentation to the public depends as much or more upon understanding the mental capacity, attitude, and general environment of the people approached, as upon a complete knowledge of the science, and advocacy of dental treatment is less likely to be suspect to the more ignorant section of the population if it does not come directly from the dental profession. Dr. Wheatley again drew attention to the significant fact that after 50 years of universal education 20–70 per cent. of parents refuse skilled dental treatment for their children when it is provided free of charge, and he suggests to education authorities that they should look upon acceptance or refusal of dental treatment as evidence of the true success or failure of the education in their districts.

A MEXICAN PUBLIC HEALTH BULLETIN.

THE appearance of the first number of what is intended to be a quarterly Bulletin[2] affords satisfactory proof of the intention of the present rulers of Mexico not to lag behind the rest of the civilised world in matters of hygiene. If the programme outlined in this volume is effectively carried out, no easy task in a country with such a turbulent population, it will be a great achievement for the Government, and in any case is evidence that in the matter of public health they have high standards before them. With a view to greater efficiency, the department seems to have been more or less reorganised at the beginning of this year, and now consists of the following sections: Infectious diseases; disinfection; tropical diseases; sanitary engineering; legislation; demography; chemistry and pharmacology; and food and drinks. It also controls the following services: Sanitary inspection; the direction of venereal dispensaries; the institute of hygiene; the Hospital Morelos (maternity); the section of propaganda and hygienic education; the antirabic institute; and the school of health—a sufficiently comprehensive list of sections. As regards its actual work, a strong line has been taken with regard to vaccination. Authorised by a clause in the Federal constitution, the department "established a sanitary dictatorship in the State of Vera Cruz and sent down vaccination brigades" to carry out the law which now makes it compulsory on all. The central department has power to compel the enforcement in individual States of sanitary measures which are not provided for by the State laws, and is convening a congress of State sanitary authorities to consider the unification of the whole administration throughout the Federation. Besides small-pox, special measures were taken against cerebro-spinal fever, malaria, rabies, and bubonic plague, whilst it is recorded with satisfaction that the fight against yellow fever has resulted in its almost complete disappearance. The campaign against tuberculous and venereal disease is being actively carried on, and in both cases dispensaries for treatment are being established. It is of some importance to note that apparently in the future it will be necessary for those wishing to practise in Mexico to pass examination by the university there, but the conditions are not made clear. The main part of the Bulletin is taken up with the usual reports of the activities of the various departments and statistical returns. An unusual feature is a section devoted to sanitary progress abroad, and here the editors pay a high compliment to England by reprinting in full a translation of Sir George Newman's address on Public Education in Hygiene, with some short papers from France and the United States. The volume is well printed and produced. If succeeding volumes show similar results, Mexico will have no need to be ashamed of its Ministry of Health.

BEFORE AND AFTER THE PANEL CONFERENCE.

THE annual conference of local medical and panel committees, of which an account appears on p. 934, was held on Oct. 22nd in London. The impending shadow of the Royal Commission's report tended to cool the atmosphere of its deliberations, though here and there a speech recalled the warmth of a smaller meeting on the day before. A resolution of confidence in the Insurance Acts Committee as the one and only body qualified to represent the panel committees to the Government provoked a discussion from which it was learnt that all parties appreciated the value of unity in the profession, and this was reassuring. It would, indeed, be unfortunate if this unity were imperilled on minor differences of policy rather than of principle. The policy of the majority is at present noticeably cautious, and whatever may be the advantages of individual initiative there is no doubt that Unity is most easily wooed amongst the big battalions which she invariably patronises. It was abundantly clear that the value of personal liberty and the possible dangers of bureaucracy are acknowledged throughout the profession, and if that liberty should be definitely and deliberately challenged united action would doubtless take the place of the united inaction which the majority now desires. The relations of the insurance practitioner, the Ministry of Health, and

[1] THE LANCET, August 15th, p. 342.
[2] Boletin del Departamento de Salubridad Publica, No. 1, 1925. Editorial Cultura Mexico D.F. Pp. 254.

the law, whilst they deeply interested the Panel Conference, did not, however, take up most of its time. Deficiencies or inaccuracies in the present machinery were suitably exposed, and the interesting question of collecting statistics was discussed at some length. It is admitted that the available information on panel and private practice, its costs, and their repayment, is at present deficient, and if a clearer case is to be presented for raising capitation fees and altering present conditions it is very desirable that accurate knowledge should be obtained. In answer to a proposed scheme it was suggested (to misquote J. M. Barrie), that the fault, dear Brutus, lay not in our staffs but in ourselves, and it is undoubtedly true that whatever organisation comes into being for collecting statistics must have the real personal coöperation of members of the profession if it is to accomplish anything useful.

THE SIZE OF THE THYMUS.

THE real facts about the weight of the thymus have been fairly well known for some time, but the general opinion of morbid anatomists has been always a good deal coloured by their own experience. And it is in connexion with the thymus that the rarity of chances of carefully dissecting the normal human body soon after death has been particularly misleading—truly ignorance of the anatomy of the average people who walk about the streets is one of the main obstacles to the further progress of pathology especially along statistical lines. In the current number of the *Journal of Pathology and Bacteriology* will be found an analysis by Dr. A. B. Bratton of data which, collected in Prof. H. M. Turnbull's Institute at the London Hospital, probably form as satisfactory a mass of material as can be had. They comprise 337 persons up to 16 years of age who died from accidents, burns or scalds, asphyxia, under anæsthesia, or from the immediate results of these. In other words, the ordinary hospital population is excluded, for it is now realised that it is difficult for a child to get into a hospital and more difficult for it to reach the post-mortem room without suffering from something which causes wasting of the thymus. In line with this, Dr. Bratton shows that the thymus is larger and persists longer than is commonly supposed. It increases rapidly in weight during the first two years, then changes little till the seventh year, when it again increases to fall slightly after the eleventh year till the sixteenth. But more important are two other conclusions which emerge. In the first place, the weight of the normal thymus at any age is so variable that it is practically impossible to say in any individual case whether it is too large or too small. Thus the mean weight at 5 years is about 25 g. But the coefficient of variation of the weights of which this is the mean is about 35, so that a range from 16 to 34 g. will exclude about a third of the cases, and one cannot say that any one thymus is abnormally large unless it weighs fully 42 g. or too small unless it is less than 8 g. The second conclusion is that "we know of no gravimetric evidence that such a condition as 'status thymicus' exists." It seems time that some caution should be exercised in finding in a normal thymus a satisfactory cause of a healthy child's unexpected death.

THE LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE.

IT was on August 1st, 1924, that the London School of Tropical Medicine became merged in the new London School of Hygiene and Tropical Medicine. At a meeting of the court of governors on Oct. 22nd some account was given of the present position and prospects of the school. The site for the new building is near the British Museum and has frontages on Keppel-street, Gower-street, and Malet-street. It was bought by the Ministry of Health in 1923 for £52,610, and it is hoped that on the plans of the architect, Mr. P. Morley Horder, the new home of the school will be ready for occupation in 1928. One cause of anxiety to the governors has been removed by the generous action of the trustees of the Rockefeller Foundation, who have amended their original undertaking, to provide a sum of $2,000,000 by promising to pay £460,830, which is the value in sterling of the money offered in 1922. By this the Rockefeller Foundation has cancelled the loss due to the gradual rise in the cost of sterling which threatened the school with a diminution in the value of the gift of more than £50,000 if conversion had been made at the rate of exchange now established. Concurrently with the task of preparing for the building, the Education Committee and the Director have given considerable thought to the general educational organisation, and the Board has recognised the necessity for taking early steps to secure the services of prospective heads of divisions in order particularly to have their advice and assistance before the details of accommodation in the new building and of its equipment are finally settled. A grant has been made by the University Grants Committee for this purpose, and in order to supplement in some essential respects the teaching for the Diploma in Public Health, which is now given at University College, Middlesex Hospital, and at the Royal Institute of Public Health. Arrangements will also be made for the equipment and organisation of the museum, which will play an important part in the educational work of the school. The Director, Dr. Andrew Balfour, has issued a report on the work of the Tropical Division for the year 1924–25. The number of students was 227, which was a record, and on the research side there have been important developments. A field station has been established in Southern Rhodesia, in pursuance of the view that available research funds should be applied primarily to setting up field stations, though expeditionary work may be undertaken in exceptional circumstances. Four research studentships in London have been arranged, and the general courses in tropical medicine and hygiene will in future be spread over 20 weeks instead of 13, and much more time will be given to clinical demonstrations and to the teaching of tropical hygiene. There is no doubt that this will equip students far more fully for their work abroad, and that the already excellent reputation of the school will be enhanced.

SHAKESPEARE AND MEDICINE.

ON the occasion of the first social evening of the session of the Royal Society of Medicine a very large gathering of members and guests assembled at 1, Wimpole-street, W., to hear the President, Sir StClair Thomson, discourse on Shakespeare as a guide in the art and practice of medicine. Having introduced himself as a lecturer, in a neat and witty speech, the President referred to the remarkable knowledge displayed by Shakespeare of the history of medicine, to the references to the status of medicine in his own day, and to many startling clinical pictures scattered through his plays, and then proceeded to consider in how much the wisdom of the great dramatist could assist the doctor as a guide in the practice of his art, for "If our virtues did not go forth of us, 'twere all alike as if we had them not." From a large and brilliantly compiled selection of quotations we may select a few, seriatim, which any modern doctor might study with profit. No finer panegyric of the medical profession could be written than that put in the mouth of Cerimon:—

> By turning o'er authorities, I have
> (Together with my practice) made familiar
> To me and to my aid, the blest infusions
> That dwell in vegetives, in metals, stones;
> And can speak of the disturbances that Nature
> Works, and of her cures; which doth give me
> A more content in course of true delight
> Than to be thirsty after tottering honour,
> Or tie my treasure up in silken bags,
> To please the fool and death. *Pericles*, iii., 2.

It is to be noticed that Shakespeare, in these lines, recognises even in those Elizabethan days of superstition and wholesale drug-taking the vis medicatrix

naturæ and gives the quite modern idea of curing our patients—

> With good advice and little medicine.
> *Henry IV.*, Part 2, iii., 1.

A justification for "case-books" is found in the wise note-taking of the Scottish doctor who attended Lady Macbeth: "I will set down what comes from her to satisfy my remembrance the more strongly." (*Macbeth*, v., 1.) The doctor must remember his patients are sick folk, and cannot judge their mental condition as he would that of healthy men and women. King Lear excuses the behaviour of his son-in-law by attributing much of his conduct to physical conditions:—

> No, but not yet;—may be, he is not well:
> Infirmity doth still neglect all office,
> Whereto our health is bound; we are not ourselves,
> When nature, being oppress'd, commands the mind
> To suffer with the body: I'll forbear;
> And am fallen out with my more headier will,
> To take the indispos'd and sickly fit
> For the sound man.
> *King Lear*, ii., 4.

Three centuries before the medical profession had adopted open-air treatment, Shakespeare had advised:

> The most wholesome physic of thy health-giving air.
> *Love's Labour Lost*, i., 1.

and recommended it as one of nature's best restoratives:—

> I pray you give her air,
> Gentlemen,
> This queen will live; nature awakes; a warmth
> Breathes out of her. *Pericles*, iii., 2.

> His highness yet doth speak; and holds belief,
> That, being brought into the open air,
> It would allay the burning quality
> Of that fell poison which assaileth him;
> Let him be brought into the orchard here.
> *King John*, v., 7.

Then, on being carried into the orchard of Swinstead Abbey, King John's first exclamation is:—

> "Ay, marry, now my soul has elbow room."

When considering therapeutic measures, said Sir StClair Thomson, we not uncommonly meet with a case which only requires the following pleasant prescription:—

> For so your doctors hold it very meet,
> Seeing too much sadness hath congeal'd your blood,
> And melancholy is the nurse of frenzy;
> Therefore they thought it good you hear a play
> And frame your mind to mirth and merriment,
> Which bars a thousand harms and lengthens life.
> *The Taming of the Shrew*, Induction, Sc. 2.

The advantages of what we would now call the simple life are shown:—

> Come; our stomachs
> Will make what's homely, savoury; weariness
> Can snore upon the flint, when rusty sloth
> Finds the down pillow hard.
> *Cymbeline*, iii., 6.

Encouragement is found in Iago's words:—

> How poor are they that have not patience!
> What wound did ever heal but by degrees?
> *Othello*, ii., 3.

and a patient's self-resistance may be raised by reminding him that:—

> Our remedies oft in ourselves do lie,
> Which we ascribe to heaven.
> *All's Well that Ends Well*, i., 1.

These are but a very few of the wise saws, having countless modern instances, which the lecturer quoted to show why Shakespeare was, and always must be, one of the greatest masters of medicine, in his astonishing acuteness of observation and his sensitive regard for "life's fitful fever." "Shakespeare's plays," he concluded, "will be read by physicians with profit to their patients when most of our modern medical text-books will be lying on the dust-heaps of literature."

Members and guests had the opportunity of inspecting in the course of the evening a most valuable exhibition of objects of Shakespearian interest, prepared by Mr. C. J. S. Thompson, M.B.E., Curator of the Wellcome Museum of Medical History. The collection included portraits of physicians and surgeons who lived in the days of Shakespeare, various portraits of Shakespeare himself, and specimens of plants, herbs, and roots mentioned by Shakespeare in his plays.

THE Chair of Midwifery and Gynæcology in University College, Dublin (National University of Ireland), rendered vacant by the death of Dr. Alfred J. Smith, has been filled by the appointment of Dr. Robert P. Farnan, who was at one time extern assistant to the Rotunda Hospital, and has been for many years gynæcologist to the Mater Misericordiæ Hospital.

Dr. J. H. Burn has been appointed to direct the Central Pharmaceutical Laboratory. It was announced by Mr. F. Pilkington Sargeant in his presidential address last May that the Council of the Pharmaceutical Society of Great Britain had decided to establish a laboratory for the standardisation of substances subject to the provisions of the Therapeutic Substances Act. The Director of the laboratory will have adequate qualified assistance and the help of an advisory committee on which Sir Nestor Tirard, Dr. H. H. Dale, and Sir Humphry Rolleston are serving as representing respectively the General Medical Council, the Medical Research Council, and the British Medical Association. Dr. Burn's distinguished academic record and work as pharmacologist and biochemist at the National Institute for Medical Research will fit him for a post which is likely to become of no little importance. The examination and standardisation of therapeutic substances is one of the really urgent questions of present-day medicine.

Modern Technique in Treatment.

A Series of Special Articles, contributed by invitation, on the Treatment of Medical and Surgical Conditions.

CLXV.—THE TREATMENT OF INFANTILE PARALYSIS.

THREE separate and distinct phases are presented by the average case of infantile paralysis and each phase has its particular treatment.

(1) *The Onset.*

There is usually a febrile period accompanied by great lassitude, headache, sickness, and flaccidity of muscles. In severe cases delirium and convulsions may precede a fatal issue. In others there may be absence of fever, and a child, at night apparently normal, may in the morning exhibit weakness of one or more limbs. There is no definite relation between the amount of initial constitutional disturbance and the degree of paralysis which ensues. Hyperæsthesia is almost a constant feature, with great tenderness of skin and muscles. Trophic changes are present early and the affected limbs become cold and reddish-blue in colour. Complete rest and warmth are the two most important essentials during this time. Support must be provided for the limbs, the joints being placed in the "normal" positions—hips and knees extended, ankles at a right angle. In upper limb paralysis the arm should be abducted at the shoulder, elbow at a right angle, and wrist dorsiflexed. The best means of securing such rest and warmth is by the provision of a plaster "shell." The body being first enclosed in cotton-wool, the plaster is then applied with the limbs, head, and back supported in the correct positions. If it is not possible to provide such a shell, a spinal frame with head-piece of the usual type, with the addition of foot or arm splints, makes a good substitute, but requires more attention. At this time no massage or electrical stimulation should be given and everything done to promote quietness and complete absence of mental or physical irritation.

(2) *The Recovery Period.*

This commences after a few weeks. The mental condition improves, irritability is lost, and the child

becomes more interested in what is going on around it. Physio-therapeutic measures should now be instituted, commencing with the gentlest form of massage, "effleurage" or stroking movements. The benefit of massage is soon shown by diminution in the degree of coldness and cyanosis. After each massage treatment the joints of the limbs affected should be gently moved through their normal range and every possible active movement encouraged. During the period of muscle-training active movements should be performed against the least possible loads. As an example of this may be given the movement of extension of the knee produced by the quadriceps extensor. In case of weakness of this muscle the patient should not be asked to extend the knee in the ordinary sitting position with the weight of the leg and foot against the muscle, but the patient should be lying down with the affected limb on its side supported on a smooth table. In this way the effort needed to extend the knee is very greatly reduced. At this time electrical stimulation may be introduced. Its greatest use is in the production of muscular contraction in the paralysed muscles where a voluntary contraction is impossible. The muscle is thus exercised and prevented from rapidly degenerating into mere fibrous tissue. If a contraction cannot be obtained by a moderate faradic current it will be necessary to use galvanism. Later it may be found that faradism will produce contraction and it should then be substituted. About the same time it is often found that voluntary contraction begins to be possible. By this date the acute stage is well over and the paralysis is beginning to define itself. It may be found, for example, that the right leg alone shows paralysis and that the foot is cold with no power of dorsiflexion, a little power in the calf, no extensor power at the knee, but fair power in the hamstrings. Moderate power is present in all hip movements. Such a limb should be exercised well, bearing in mind that support must always be provided for the weak muscles. The child should wear, at night, a splint to keep the knee extended and the ankle at a right angle. In the application of a splint to maintain the right angle at the ankle it is of the utmost importance that the medical attendant should see that the nurse, masseuse, or mother who is responsible for the putting on of the splint should appreciate the fact that the heel must come down to the foot-piece. One so often sees such a splint applied with the heel a couple of inches away and the forepart of the foot alone meeting the foot-piece. In this way many cases of paralytic equinus are produced. In the daytime a walking appliance should be provided, and, in the case of such a paralysis as we have assumed, a "walking calliper" will be most suitable with a spring added to dorsiflex the ankle. With such an appliance a child will soon get about and will exercise the limb to the fullest possible extent. Should both legs be paralysed two callipers will be needed and in this case a walking machine is of great assistance. After a period of such treatment for 12 months the degree of residual paralysis may be determined.

(3) *Residual Paralysis.*

This is the stage in which little or no further change takes place in the recovery of power and in which surgery must attempt to diminish, as far as possible, the need for appliances and to utilise the residual power to its best advantage. The handicap of steels, leathers, and straps, loaded on a limb already severely enfeebled, must be reduced to its absolute minimum.

Much may be done, and the measures which offer the greatest chance of improvement are: (*a*) tendon transplantation; (*b*) tenodesis, or tendon fixation; (*c*) arthrodesis, or stabilisation of joints. These procedures, which have been largely developed during the past ten years, have proved their worth and are now a well-established part of the surgical repertory. Three simple cases may be taken to illustrate the utility of the three operations.

Paralytic Talipes Valgus.—Here the residual paralysis affects the tibialis anticus and posticus, and the foot is drawn over into a valgus position by the unopposed peronei. In this case the peroneus brevis, and sometimes the tertius as well, is transferred to the inner side of the foot and fixed to the insertion of tibialis anticus and scaphoid bone. In all such operations the transplanted tendon must run in as straight a line as possible from origin to new insertion so as to act at the best mechanical advantage. The foot, after operation, is supported in inversion, preferably by plaster, for six weeks, and at the end of this period the transplant must be "re-educated" and developed to perform its new function. Such a transplant when successful will overcome the valgus and so avoid the need for an outside iron and T-strap.

Drop-foot.—In this hypothetical case the dorsiflexors of the ankle are paralysed and an iron with a "stop" at the ankle-joint or an uplifting toe-spring must be worn so that the toes may clear the ground in walking. The paralysed tibialis anticus is exposed in the lower third of the leg and its tendon is cut across at its upper limit. A tunnel is bored transversely through the crest of the tibia and the cut tendon is looped through the bone and sewn back to itself and to periosteum with the ankle at a little less than a right angle. There is always some "give" after such a tendon fixation, so that it is advised to give the ankle about ten degrees more dorsiflexion than is desired in the ultimate result.

Unstable Ankle.—In such a foot the remaining power is so small that, when weight is placed on it, the ankle "wobbles" to one side or the other and is forced over into a deformed position. There may be some available muscle power, probably in peronei or calf. The precise distribution varies greatly, but the need for stabilisation of such a foot is apparent. The ankle-joint movement, plus the mid-tarsal movement, permits a range about the ankle as great as a ball-and-socket joint would, and it must be our object to remove the mid-tarsal movement and leave only the up and down hinge movement of the ankle-joint proper. There is, of course, a little side-to-side and rotatory movement at the ankle-joint, but it is slight, and amounts to very little when the mid-tarsal "wobble" is removed. Several methods of dealing with the mid-tarsal and astragalo-calcaneal joints have been devised, but the object in each case is the removal of the articular cartilage of the astragalo-scaphoid, astragalo-calcaneal, and calcaneo-cuboid joints and the procuring of bony union in these situations. Three months' fixation in plaster is required after such an operation. In a successful case it is then found that the foot is stable and can bear weight without rocking over. Usually a combination of the measures above mentioned is necessary, stabilisation of the mid-tarsus with the addition of a tendon transplant or tendon fixation being the common procedure. Mid-tarsal arthrodesis should not be attempted before the age of 8 years because of the amount of bone surface needed to ensure firm ankylosis.

Another common site for the use of arthrodesis is at the shoulder-joint, where power of abduction is lost and the arm cannot be carried away from the side, but where the shoulder can be effectively "shrugged" by the scapular rotators and elevators. In these patients it is usual to find a good forearm and hand. The articular cartilage of glenoid and head of humerus is removed and the arm fixed at a little less than a right angle from the side and 30 degrees in front of the transverse axis of the pectoral girdle. The shoulder is fixed in plaster in this position from the time of operation for three months and, after firm ankylosis is procured, the arm can be lifted from the side by the scapular muscles quite strongly, so that very much more use can be made of the non-paralysed forearm and hand. Because of the ossification of the humerus and glenoid it is not wise to undertake this arthrodesis until the age of 14 years.

ROBERT OLLERENSHAW, M.D. Manch., F.R.C.S. Eng.,
Orthopædic Surgeon to the Royal Manchester Children's Hospital.

Special Articles.

THE PANEL CONFERENCE: PROFESSIONAL UNITY AND DISCIPLINE.

THE annual conference of representatives of local medical and panel committees met at the British Medical Association's house in Tavistock-square, London, on Oct. 22nd, under the chairmanship of Dr. E. K. Le Fleming, of Dorset. This was the first meeting of the panel conference in the Great Hall, and the Chairman's opening words of congratulation to the British Medical Association on its new premises were cordially endorsed by the delegates.

Report of Insurance Acts Committee.

On the motion to receive the report of the Insurance Acts Committee (hereafter called the I.A.C.) for 1924–25, Dr. H. G. Dain, the chairman of that body, said that the conference agenda raised few big controversial questions because a special conference earlier in the year had dealt with the evidence placed before the Royal Commission, and because plans of development and improvement must wait on the report of that Commission. He drew attention to the new arrangements for ophthalmic benefit,[1] which were experimental and were the first attempt to add a specialist service to the general practitioner service. It was hoped that other similar services might be added. A new standard had been set up and the approved societies would have to be weaned from their previous arrangements. As yet a very small number of insured persons came under the scope of the scheme, and it had also been difficult to ensure that the right ophthalmic specialists appeared on the lists. The other important matter in the report referred to the disciplinary powers of the Ministry of Health. A deputation of the I.A.C. had put before the Minister four guiding principles [2] which had been proposed to the Royal Commission, and the Minister had agreed that these principles were sound, though they might not be easy to apply. There was no evidence as yet whether the interview had borne fruit, but it was noteworthy that there had been no decisions by the Ministry since the interview on June 18th, 1925, which were not in keeping with the principles suggested. That for which they had stood most firmly was that under no circumstances was an officer of the Ministry competent to set up a standard of treatment. Insured persons were entitled to the best services the duly qualified practitioner could give them, but a lay Ministry ought not to insist on a standard of treatment different from that which the doctor offered to a private patient.

Unity in the Profession.

Dr. E. R. Fothergill then moved a special resolution of confidence in the Insurance Acts Committee of the British Medical Association as the one and only body authorised to defend the honour and interests of insurance practitioners and to voice their wishes. The resolution urged all constituent committees loyally to support that Committee only, and to dissociate themselves from any action taken within the profession by others, which could only result in disunion and in rendering collective bargaining impossible. He had put down the resolution that morning on reading in the lay press an account of a conference held on the previous day which had appointed delegates to put its views before the Minister. He recalled the efficient action of the I.A.C. on various occasions; it represented 99 per cent. of insurance practitioners; it was recognised by the Government as expressing the profession's opinion, and it was a body which considered the good of the public as well as of its constituents. If panel committees coquetted with other organisations the public would think that the profession was in revolt. The future was likely to be far from calm and unity was essential.

Dr. Peter Macdonald feared that the proceedings referred to might lead the profession to suppose that the I.A.C. had done nothing, and this entirely wrong impression must be corrected.

Dr. Gordon Ward said that the Medical Practitioners' Union was in existence and was increasing in membership; it claimed no more support than it received. He believed in unity, too, and considered it very unwise to force the M.P.U. into antagonism.

Dr. E. A. Gregg said that the M.P.U. had never received the thanks that its work deserved. Though the I.A.C. seemed satisfied with the Minister's utterances the profession was not thus satisfied. It was their duty to press for the widest possible freedom for the practitioner.

Dr. H. B. Brackenbury thought that, although individual members of the profession could do what they liked, there must be no division of loyalties amongst panel committees. To send a separate deputation to the Ministry was a fatal step. Dr. Fothergill's motion was carried.

Disciplinary Machinery.

In support of a motion by Croydon that all complaints against insurance practitioners should be dealt with in the first instance by insurance committees, it was stated that the Ministry had deducted fines from doctors for failing to send in reports of their patients to tuberculosis officers, and that this had been done without reference to the insurance committee.

Dr. H. G. Dain said that tuberculosis officers reported such defaults to their regional medical officer who reported direct to the Ministry. The Ministry's view was that where no fact was in dispute it was unnecessary to refer to the insurance committee, and in the opinion of the I.A.C. it would be unwise to press against this view. Croydon considered the matter to be one of principle rather than convenience, but the conference did not agree, and the motion was lost.

Right of Appeal from Minister's Decision.

A long discussion followed a motion by Cheshire that insurance practitioners should have a right of appeal from the decisions of the Minister to the High Court, or, when removal from the panel was in question, to a medical tribunal if such were created. This appeal was to be exercised not only on grounds of procedure, but on the merits of the case.

Dr. L. J. Picton said that opponents had objected that litigation would be endless if such a right of appeal were granted; that the idea was unconstitutional; and that to ask for such rights suggested lack of confidence in the Minister, who could interpret the special terms of service of insurance practice which might not be understood by the common courts. But the practitioner had no fear of the common law, and it was regrettable that he was deprived of the right which every citizen enjoyed. This safety-valve had been shut down for fear of excessive litigation, and it

[1] Vide THE LANCET, Oct. 17th, p. 823.

[2] The four principles referred to are these: 1. That when a complaint has been dealt with by the bodies set up by the regulations for this purpose there should not be a liability to have the whole matter reopened by separate departmental action, either by the Ministry itself or by those bodies at the instigation of the Ministry. 2. That when a complaint has been made in one prescribed form penalties should not be inflicted in respect of offences not formally alleged or of offences which, if alleged, should have been formulated in a different prescribed way and might have required a different line of defence. 3. That full consideration should be paid to the findings or recommendations of a committee (whether Medical Service Subcommittee or Inquiry Committee) which has itself investigated the details of the case in mitigation of the heinousness of the misconduct even when proved. 4. That it is essential to draw a strict distinction between professional conduct in the attention given to a patient and the nature of the exact professional treatment given to the patient, and that the propriety or otherwise of any particular method or line of treatment should not be made the subject of investigation in connexion with the insurance service.

had been a great mistake. They did not want to appeal against penalties, but in the rare event of an appeal to the High Courts being demanded they wanted the cases tried again de novo.

Dr. D. F. Todd moved an amendment to the effect that the appeal should be made to an independent authority only if the panel committee approved; but the Conference thought that this gave unsatisfactory authority to the committee, and the amendment was lost.

Dr. G. C. Garratt said that the present machinery had broken down; the Ministry's powers were a standing menace to the profession and it could only have gained them by a lamentable oversight. They were more fundamentally foreign to the British Constitution than any other legislation since Stuart times.

Dr. Brackenbury remarked that the I.A.C. had suggested to the Royal Commission that all personal disputes as to judgment, neglect, and the like, should be taken out of the insurance machinery and should be treated exactly as in ordinary practice. It had also suggested that there were only three possible grounds for complaint—namely, giving a false certificate, taking money from a patient after giving an undertaking not to do so, and habit or conduct such as ought to remove a man from the panel.

The Conference decided that for the time being it had been sufficient to ventilate its opinion, pending the Royal Commission's report, and accordingly passed on to the next business.

Administrative Items.

A motion that when a practitioner recommends an approved society to send a member to an ophthalmic surgeon whose name appears on the list he should have the right of nominating the surgeon was amended so that "suggesting" took the place of "nominating." It was pointed out that suggestion was always possible and that the motion had lost point, but the Conference passed it nevertheless as a record of its opinion. The proposal was made that a distinction should be made on the lists between operating ophthalmic surgeons and practitioners whose experience enabled them to do refraction work, but this was not approved. The Conference agreed to a motion by the I.A.C. that a return should be made to the earlier practice of intimating to patients, on the notices sent to them on the death or retirement of their doctor, that unless they made a fresh choice within 14 days they would be transferred to the successor's list.

The question of the abuse of such a rule by rapid re-transference of practices thus transferred was passed on to the I.A.C. for consideration. A resolution against unnecessary records of attendances, which tend to obscure the important clinical notes, was carried with little or no opposition, and a proposal by Lincoln that doctors should have permission to issue intermediate convalescent certificates before 28 days' treatment had been given also received assent. It was agreed that the time of issue should be left to the doctor's discretion and that the maximum period covered should be one month.

Dispensing Allowances.

Essex moved, and the Conference agreed:

"That, in view of the difference between the average cost of drugs dispensed by a chemist in the area of the Essex Insurance Committee, which amounts to 8·7*d.* per insured person per quarter for the year 1924, compared with the amount of the capitation fee paid to rural practitioners for the purpose of dispensing drugs—namely, 6*d.* per quarter per insured person, the Insurance Acts Committee be asked to take such steps as they may deem necessary to obtain an increase in the remuneration paid to rural practitioners who undertake their own dispensing."

Evidence of an inquiry into the costs of prescribing and dispensing was given by Northumberland, and Dr. J. P. Williams-Freeman said that the rural subcommittee would like to have such evidence from other areas. Fees for serum dispensing were also discussed and referred to the I.A.C., and the Medico-Political Committee was asked to consider further the standardisation of methylated spirit.

Treatment of Seamen: Private Patients.

Essex drew attention to the practice of the Seamen's National Insurance Society in urging its members to go to doctors whom it recommends. The low rates accepted by practitioners who work for this society were also considered.

Dr. Alfred Cox said that the question was an old one, and the B.M.A. Medico-Political Committee was trying to get the society to raise the scale. The recommendation of certain doctors was intended to benefit the seamen themselves, for these doctors were experienced in dealing with them and the seamen preferred their advice. It was, said Dr. Cox, very difficult to induce members not to accept the lowered fees, but Southampton had taken a lead against this practice.

Dr. J. S. Manson, in moving a resolution for Warrington, said that it was not clear what was the position of an insurance practitioner if an insured person not on his list wanted to come to him as a private patient. It was suggested by other speakers that if the patient persisted in his wish to be treated privately after it had been explained that he could be treated under the Act there seemed to be no reason why he should not be a private patient; but that it was important to have his assurance in writing.

Collection of Statistics.

Kent introduced a motion deploring the inability of the profession to produce authoritative statistics on such matters as fees, mileage, costs of transport, and the average income of medical men, and suggesting an organised campaign to collect such statistics, for which a part of the National Defence Trust's funds might be utilised. In a preliminary statement, Dr. A. Cox said that 270 practitioners were already making returns of their insured and uninsured patients, and that 150 model account books had been forwarded, of which 20 had so far been filled up and sent back. He thought that the scope of this investigation was big enough if only the doctors would return the figures; it was individual work rather than theoretical plans that were needed.

Dr. Gordon Ward (Kent) said that the country should be mapped out into districts; every practitioner in a district should be personally encouraged by travelling investigators to give the necessary particulars, as the people willing to send in figures by themselves were a special group and not representative. Figures of income in the so-called comparable professions should be collected. The isolated instance was of little value, but the general district survey was invincible as evidence. A central statistical committee should be set up, and, although a minimum of £5000 would be required for the purpose from the National Fund (which stood at £78,000), the evidence that would be collected might eventually mean a difference of 6*d.* in the capitation fee of 15 million insured persons.

Dr. J. W. Bone did not think £5000 would go far.

Dr. Williams-Freeman thought that a permanent statistical committee of the B.M.A. would be very useful. The Conference eventually agreed with Kent that information was desirable, and referred the matter to the I.A.C., without, however, instruction as to the exact methods to be adopted.

Other Problems.

A suggestion that a limit should now be fixed to the National Defence Fund was also referred to the I.A.C. and there was considerable discussion of the failure of many local committees to subscribe. Coöperative action between practitioners and regional medical officers was also considered, and the possibility of redress when unfounded charges were made by approved societies.

The Conference expressed its opinion that insured persons who are no longer entitled to benefit should be notified of the fact by the approved societies.

The Chairman, Dr. Le Fleming, was unanimously re-elected for the ensuing year. The Conference concluded at about 6.45 P.M.

PANEL CONFERENCE DINNER.

A dinner to the Insurance Acts Committee was held at the Trocadero Restaurant, London, in the evening, at which, as in previous years, Dr. H. J. Cardale, chairman of the London County Panel Committee, occupied the chair. A large number of delegates to the Panel Conference attended and derived entertainment from many witty speeches, from the slightly miraculous efforts of Mr. Herbert Collings and from the songs of Miss Ethel Kemish. Proposing the health of the members and officers of the Insurance Acts Committee, Dr. J. O. Summerhayes said that what was wanted on that Committee was "a strong mixture," and they had got it. The Committee was leading them—though he hardly knew where; in spite of the rivalry of another organisation it would continue to do so, and as long as it made arrangements by which the man who did his duty by his patients was not defrauded of his proper recompense, then he, for one, would be content. Dr. H. G. Dain replied amusingly for the I.A.C.; Dr. Alfred Cox deplored the fact that no doctor ever reads anything, and Dr. G. C. Anderson discussed Dr. Cox's approaching departure for South Africa. Dr. R. A. Bolam proposed the health of the medical Members of Parliament and Dr. Haden Guest, M.P., replied. He said that the medical committee of the House, which had 14 Members, put the medical interests of the community before the particular interests of parties. He considered that medicine was a particularly valuable training for public life; what was needed in politics was a more scientific attitude, and the successful doctor was wanted there far more than the successful financier or grocer. Dr. Graham Little, M.P., also spoke of the Parliamentary Medical Committee, of which he is secretary. There were ten times as many lawyers as doctors in the House, and the balance should be redressed. It was unnecessary and even undesirable to give up practice on entering political life. Sir Richard Luce, M.P., largely endorsed the views of his colleagues and described his own unexpected political debut. The dinner ended with "Auld Lang Syne."

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

James Mackenzie Institute for Clinical Research, St. Andrews.

ON Oct. 20th Prof. Adam Patrick described some observations on temperature and pulse-rate, showing an interesting series of charts illustrative of most of the common fevers. He strongly advocated greater accuracy in recording temperature, drawing attention to the common practice of nurses in omitting to record temperatures below 97° F. Similar inaccuracy was common in regard to high pulse-rates. The physician, wherever possible, should check the records by his own observations. He insisted on the extreme value of graphic records of the pulse-rate, a gradual rise in rate being more readily detected where this method is employed. In rheumatic fever, for example, a pulse chart was the best indicator of the onset of endocarditis. He deprecated the use of the word "normal" in relation to a fixed point of temperature such as 98·4° F. This might be regarded as the upper limit of normal temperature, but in nearly all healthy individuals the average morning temperature was considerably lower. As a rule the pulse-rate increased about ten beats as the temperature rose one degree, but there were wide differences in this ratio in different diseases. He drew attention to the fact that in many febrile conditions the quickened pulse of fever was succeeded during convalescence by an unusually slow rate. He considered that all these matters required more accurate recording and fuller investigation.

Prof. Harvey Cushing's Address.

On Oct. 23rd Prof. Harvey Cushing delighted a large audience with an informal talk, illustrated by references to his own special subjects of study, on the comparison between research work as carried on in hospital and in general practice. He pointed out that the necessary stimulus for research was the same—namely, the common desire to find satisfactory answers to problems of difficulty which present themselves for solution. The worker who saw all his patients in an institution (as he did in America) had better opportunities for obtaining records of his special cases and more time and facilities for investigation than the general practitioner. He himself was directly descended from three generations of general practitioners, who had practised in the same district, and one of his most cherished possessions was a collection of the case-books of these ancestors. Not only were they records of illness in individuals, but they provided, by their continuity, material for the study of familial tendencies which could be obtained in no other way. They demonstrated the extreme value of accurate and continuous records in medicine. To enhance the value of records, he advocated the employment, wherever possible, of instruments of precision; though it must be clearly understood that these must never overbalance the general judgment of a case. He referred to the ophthalmoscope, the sphygmomanometer, the polygraph, the electrocardiograph, and the thermometer, pleading for more accurate use of the latter (as did Prof. Patrick in his address). Routine daily records of facts such as temperature might often appear to be a waste of time, but not infrequently an observation of the greatest importance would crop up.

In connexion with his special study he warned practitioners that, in cases of cerebral tumour, any of the cardinal symptoms (headache, vomiting, choked disc) might be absent, and, indeed, that cerebral tumours of slow growth might attain considerable size with no symptoms whatever. In his experience the intracranial cavity was the commonest site of tumour growth in the body. He spoke of the importance of detailed recording of such a symptom as headache (site, time of occurrence, and character) on Mackenzie's lines. If any symptom was carefully studied in this way important leads were sure to emerge. He commented upon our ignorance of the mechanism of production of headache. In conscious patients direct manipulation of the cerebral substance produced no sensation, but acute pain was experienced if the membranes were pulled upon, or an artery clipped or ligatured. Clinical research, whether by specialists or by general practitioners, was carried out by similar means and with the same object. The inquiring mind, that would not rest till it got an explanation, was what mattered.

Edinburgh: Royal Medical Society.

At the opening of the 189th session of the Society, Sir James Purves-Stewart delivered the inaugural address on comradeship in science. The Senior President, Dr. Drummond Shiels, M.P., was in the chair. Sir James Purves-Stewart, said his subject was selected mainly to address to those of his hearers who would seek their fortunes elsewhere than in Edinburgh. The capacity of combination with one's fellows and the faculty of profiting by such combination was a fundamentally biological principle. The lowest type of herd, said the speaker—quoting examples in the animal kingdom—was that of the communists, where all were equal. There was then the type which had developed specialised classes, consisting perhaps of workers and fighters. And, lastly, there was the type which had a kind of monarchy, where one individual was higher than all the rest—such as in the case of the queen bee. Man could only reach his highest development by following this instinct, with its pride of family, profession, country, or race. Every ordinary individual desired to be one of a crowd. In civilised communities the herd instinct

dominated. If the herd instinct was lost in a man he became selfish and vicious. Passing on to discuss the beneficent effects of gregariousness, coöperation, or comradeship in professions, such as the medical profession, Sir James Purves-Stewart said it would be inappropriate at such a time to discuss abstract socialism as a political mode of life. But socialism of a constructive type had been going on in a small but important part of the community. Men of science had pooled their knowledge for the general advancement of science, and more, they let the whole world profit. The working man rode every day for twopence in an electric train. He knew nothing of electricity, and perhaps would never be able to master the application of such knowledge to the problem of his transport. He reached his destination; he was taken to the surface again by a moving staircase, of the mechanism of which he was again entirely ignorant. And if he stepped off with the wrong foot first and was seriously hurt he would be taken to hospital, where medical science, of which he knew nothing, would do all that science could do for him, and would do it for nothing. That was the socialism of science. What did it receive in return from those who profited by it? They all knew the answer. Our hospitals were chronically in debt; research was half-starved. Compared with the manufacturer, the merchant, or the financier, very few scientists were wealthy men. In fact, practically no return was made by the great body of laymen in any way commensurate with the advantages which they so eagerly accepted.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Hygiene and Budgets in Paris.

SCARCITY in the public funds at Paris is noticeable in two striking ways. The onset of winter brings discomfort from cold in apartments, office buildings, laboratories, class-rooms, and assembly halls of all sorts, and the large libraries are greatly hampered by insufficient illumination. The medical profession is thus considerably affected. The Academy of Medicine, whose pre-war budget sometimes rose to 65,000 francs in days antedating later huge advances in general costs, has been so poorly warmed during this autumn that a committee of the academicians has been obliged to wait upon the public powers with a request for adequate fuel. A Paris newspaper observes that, since charity and lotteries are scarcely applicable here, the savants of the Academy will have to remain at home.

Closed Pharmacies.

The closure of pharmacies at night, on Sundays, and on holidays constitutes one of the few drawbacks of our capital. All-night service is available at one pharmacy on the Boulevard de Montmartre, rather a long way from the Opéra, and a pharmacy near the Gare St. Lazare remains open until midnight. These two pharmacies appear to constitute the practical night service at Paris, unless one has recourse to the mairie of his arrondissement for official direction to a pharmacy supposedly open. Pharmacies closed at night, on Sundays, and on holidays usually post up a list of pharmacies, of which one should always be open. One often makes troublesome trips to these places only to find them closed after all. This system of closure is due to action by the pharmacists' union. A pharmacist preferring to keep open shop has recently tried it, with great benefit to the public and displeasure to his syndicate. This case has caused legal action and is not yet settled. Anyone who is ill at Paris had better do his pharmaceutical shopping early.

Surgery and Taxation.

Taxes will continue to hamper life generally in France for a long time to come, as they do everywhere. Imposts on anæsthetics and other drugs and medicinal substances complicate the surgical and medical situation not a little. The maisons de santé, or private hospitals, of Paris, now taxed on a hypothetical profit basis of 20 per cent., are so gravely menaced by this difficulty that surgery is by no means without danger of being relegated to makeshift operations in private houses, since the general raising of prices to cover the taxation is scarcely practicable for large medical and surgical needs. A committee of the French Surgical Syndicate, which has just been in session, is considering this matter.

Treatment of Congenital Syphilis.

The importance of treating syphilis preventively, by prompt attention to the pregnant mother and to infancy and early childhood, is now comprehended universally, and at the Paris conference on congenital syphilis, to which I referred in my letter last week, the following conclusions were adopted: Congenital syphilis should be treated promptly and during a number of years. Not only must symptoms be controlled, but real cure must be sought. Active signs require treatment by progressively increasing doses of arsenicals, contra-indications being duly observed. Fundamental treatment with mercury or bismuth should be instituted when clinical and serological signs have ceased or if the disease remains latent. Opotherapy should accompany antiluetic treatment if endocrine function be insufficient. Breast-feeding by the mother is imperatively demanded, and in no case may a wet-nurse be employed. Observation should continue for a long time after the cessation of treatment.

Music in Hospitals.

While music has been advocated for systematic application after anæsthesia and in other ways, it is also useful simply as a recreation, especially in institutions containing many incurable cases, and patients who must drag out a long, hopeless existence. A group of interested persons has just provided a fine gramophone for a large medical ward in the Hôpital Lariboisière. The instrument cannot well be installed in the general ward, since it could not always be acceptable to all the sick. It is being installed in a small room adjacent to the ward, and to this modest "salon" those of the patients who desire may resort for a little solace. The records selected supply a variety of music, but the best of the classics predominate. This thoughtful provision should aid materially in cheering the indigent and resourceless sick, although less ambitious than the plan to provide every hospital bed in London with a listening-in set.

NOTES FROM CANADA.

(BY AN OCCASIONAL CORRESPONDENT.)

Lord Dawson at McGill University.

Lord Dawson of Penn was given the honorary degree of Doctor of Law at the autumn convocation of McGill University, held on Oct. 6th. In an address delivered after receiving the degree Lord Dawson said that a university must not think only of future vocations when providing students with their equipment for life. The training of character, essentially a duty of a true university, would not be effected in an institution that was a mere emporium of facts. Adequate facilities were not in themselves sufficient, unless the student mind received training from the teaching system, and the brilliant and rapid advances that invention was making were apt to obscure the spirit of education. Lord Dawson accorded high praise to McGill as the first University in the Empire to send a fully-equipped hospital to France during the war; no hospital in the Service had surpassed it in reputation. He concluded an eloquent address by

urging the students to play their full part in the affairs of the country and of the Empire. Sir Arthur Currie, the principal of the University, laid especial stress on the idea that their duty did not lie in application to study and to study alone; their duty was to realise and participate in the problems of Canada. He showed what McGill had meant in the life of Canada, in medicine and surgery, in commerce, in the schools and colleges, in peace and in war, and reminded them of the young men who had crowded their way to death 11 years ago at the call of their country. Those in the University to-day were born too late to answer that call, but still had their duty. Every great crisis in Canada was an Ypres, a Vimy, a Passchendaele, and a great battle for their country lay before them—a battle against ignorance and prejudice and wrong.

On Oct. 12th Lord Dawson gave an interesting address to the Academy of Medicine, Toronto, on High Blood Pressure. He discussed especially the influence of anxiety and strain.

Objections to Milk Pasteurisation.

The Union of Coöperative Milk Dealers of Montreal object to certain of the milk regulations about pasteurisation, and have asked the city council of Montreal to compel farmers providing milk for pasteurisation to pass the same strict examination and qualify to the same degree as those who furnish natural or raw milk, which is called special milk in the by-law. They base their conclusions on the premise that germs enter milk between the time it is drawn from the cows and pasteurised; if milk be not treated immediately after it is drawn it is useless to pasteurise it because the products of bacterial action are already present though the milk is apparently given a new lease of life. They question adversely a clause in the regulations demanding that milk from a herd in which a tuberculous or doubtful cow is found shall be pasteurised before it is sold, by which no milk may be sold as raw while the suspected cow remains in possession of the owner of the herd. It is pointed out that the enforcement of this regulation does not protect the public, and will allow unscrupulous dealers to circumvent the law and sell natural milk, although a cow in the herd may be tuberculous; the cow is simply transferred to another person for the time being in order to hoodwink the inspectors. They insist that pasteurisation is practically useless unless applied immediately after milk is drawn, and that the only way to guarantee pure milk is to ensure that it is clean and healthy in its origin. It must come from healthy cows which are able to pass a high test such as that required for raw milk.

Standardisation of Education in Canada.

Prof. Stephen Leacock, addressing the students of Queen's University on Oct. 16th on the Work of the Canadian Universities, drew attention to the danger of over-standardisation in education. He pointed out that there was a tendency nowadays, in America at any rate, to reduce everything to a standard or pattern. In the industrial world this was admirable; but though the standardisation of a Ford car was excellent the standardisation of brains was dangerous. It did not do to have every school and every college like every other school and college. There was in Canada a notable contrast between the American ideal of education and the British—or what was till yesterday the British. Prof. Leacock considered that in Great Britain the training of the student was on freer lines, less definite, less mechanical; it was not cut and divided into parts, and more play was left for individual variety, for individual preference, and for individual difference. Education, in short, he said, contained a large element that was more or less at random and spontaneous. He uttered a warning against the spreading tendency in Canada to adopt the American standardising type of education. Education, he said, needs freedom, variety, and elbow room.

Public Health Services.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

THE following are some of the health statistics of four seaport cities for 1924:—

Name of city.	Estimated mid-year population (R.-G.).	Birth-rate.	Death-rates per 1000 of the population.				Death-rates per 1000 births.		
			All causes.	Tuberculosis.	Cancer.	Resp. diseases with influenza.	Neonatal mortality.	Infant mortality.	Maternal mort. from childbirth.
Glasgow . ..	1,051,000	24·1	16·1	1·46	1·21	3·7	38	119	5·5
Bristol	386,200	18·7	12·8	1·16	1·34	2·8	34	72	4·6
Hull	296,800	22·4	13·5	1·32	1·23	3·4	32	87	3·6
Newcastle-upon-Tyne..	285,900	22·2	13·5	1·47	1·25	3·0	45	100	2·4

Glasgow.

Dr. A. S. M. Macgregor (interim medical officer of health) submits the report for the year 1924, during which Dr. A. K. Chalmers was still medical officer of health for the city. The local estimate of the population exceeds that of the Registrar-General by 45,000, and if the local estimate be used the rates per 1000 of the population in the above table would be reduced by about 4 per cent. Thus the Registrar-General's death-rate of 16·1 would become 15·4.

In the maternity and child welfare scheme it was decided to experiment in the provision of home-helps, and in August about 30 to 40 suitable women were enrolled for the purpose, but their services were only sought on nine occasions. The number of women admitted to the antenatal wards of the Royal Maternity Hospital was 706, an increase of 100 when compared with the previous year. The number of new cases attending the antenatal clinics was about 3700, the births being 25,330. There were 592 cases of ophthalmia neonatorum notified. The symptoms of the disease appeared within 12 hours of birth in 46 cases, between 12 hours and 4 days in 221 cases, between 4 and 8 days in 206 cases, and later than 8 days in 119 cases. Of the total cases, 49 were classified as gonococcal, 348 as non-gonococcal, and 195 were unclassified. Of the survivors among the gonococcal cases, 3 had corneal scars in one eye without the sight being impaired, 1 had a corneal scar with impaired sight in one eye, 1 had corneal scars in both eyes with unimpaired sight, 1 had scars in both eyes with impaired sight, and 1 was blind in both eyes. Of the non-gonococcal cases none of the survivors had impaired sight. Owing to the difficulty frequently experienced by midwives in obtaining the services of a doctor in an emergency, an alteration of the rule of the Maternity Hospital, by which admission can only be obtained on the direct request of the medical attendant, has been made, and the Maternity Hospital will now admit such cases when a medical man is not available.

Two cases of small-pox were treated in hospital during the year, both being infected abroad. Infantile vaccination is fairly well maintained in Glasgow, about two-thirds of the infants in the city having been successfully vaccinated during the years 1920 to 1922. The number of conscientious objectors varies, however, in the different wards. Thus in Fairfield and Gowan 37 and 35 per cent. respectively of the infants were not vaccinated during 1924, while in Kelvinside the percentage of conscientious objectors was only five.

An unusually extensive school outbreak of scarlet fever was recorded just after the summer holidays, 45 scholars and 2 teachers being infected out of

a total of 1030 scholars and a staff of 18. Encephalitis lethargica was more prevalent during 1924, the maximum being reached during the month of May. There were 391 cases with 46 deaths. At Ruchill Hospital serum immunisation against measles has been used to a limited extent. The incidence of the disease was thereby considerably reduced among susceptible contacts, and in a few cases the disease developed in a modified form. A considerable amount of hospital accommodation has always been found for badly housed cases of measles and whooping-cough in Glasgow, and during 1924 it was decided to appoint additional nurses to supervise home-treated cases of these diseases.

A report on the deep X ray treatment of tuberculosis by Dr. J. A. Wilson and Dr. Fergus Henderson shows that beneficial results were obtained in certain cases of chronic non-pulmonary tuberculosis. This treatment was especially satisfactory for cervical glands and for bones and joints when the lesions were single and superficially placed. For the deep joints, such as the hip, and in all joints where there was extensive exudation, the results were unsatisfactory.

Bristol.

Dr. D. S. Davies reports that with a view to the coördination of the medical services of the city the school medical officer has been appointed deputy medical officer of health, and that arrangements were made during 1924 whereby children found by the maternity and child welfare staff to be suffering from eye troubles or crippling diseases, such as rickets, infantile paralysis, &c., are referred to the school clinics for treatment. During the year 97 cases of eye trouble and 43 of crippling diseases were so referred. The health committee contemplate developing Frenchay Park Sanatorium into a complete orthopædic hospital in order to avoid the present inconvenience of sending cases to distant hospitals. Milk samples, to the number of 50, were examined for tubercle with two positive and one suspicious result. Visits to the farms were unsuccessful in finding out the offending cows. The hospital accommodation for infectious diseases has been reported as inadequate for several years, there being 240 beds for a population of 386,000, and in April the council decided to provide 56 additional beds at Ham Green Hospital. The work is now in hand.

During 1924 an inquiry was carried out by Dr. Dorothy Staley as to the sequelæ of encephalitis lethargica. The inquiry covered 76 patients, whose illness began during the years 1919–23. Of the 76 cases, 26 had completely recovered, 4 could not be traced, and 4 had died. Of the remainder, 6 were totally unable to work, 15 showed partial inability to work, and 17 suffered from apathy, dullness, drowsiness, and defective memory. Two were affected by dementia, 2 by viciousness, and 35 suffered from various forms of paresis. Many of the patients presented a multiplicity of nerve lesions, and a number were in a very grave condition. In few was there any appearance of improvement taking place at present. Dr. B. A. I. Peters, the R.M.O. of Ham Green Hospital, reports that during the three years from the adoption of the Schick test for the staff until the end of 1924, no immunised member of the staff has contracted diphtheria nor has anyone been incapacitated from duty owing to the inoculations. Previous to this, an average of five members of the staff was attacked annually by diphtheria, and in 1921 no less than 12 developed the disease.

Hull.

Dr. J. Wright Mason submits his forty-third and last report, and in doing so contrasts some of the statistics of the first and last years of his tenure of office. Thus when 1881 is compared with 1924 the population shows an increase from 155,160 to 296,800, the birth-rate has declined from 36 to 25·8, and the death-rate from 23 to 13·5. The rate from zymotic diseases was 6·12 in 1881 and 0·6 in 1924, whilst infant mortality has declined from 193 to 77.

Dr. Katherine Gamgee reports on the maternity and child welfare work. During 1924 150 cases of eye discharge in babies were investigated, of which 122 were classed as true ophthalmia neonatorum. In three of the 122 cases there was injury to the cornea, in one case there was blindness of one eye, and in one case blindness of both eyes. In the first quarter of the year the maternity home was transferred to Cottingham and was temporarily established in the new pavilion of the infectious diseases hospital. The available accommodation has thus been increased from 11 beds to 20. The sisters of the maternity home act as municipal midwives in turns, and an antenatal clinic is held at 14, Kingston-square for cases seeking admission to the maternity home, for all abnormal cases, and for primiparæ applying for a free midwife. Dr. Ethel Townend, the part-time medical officer to the maternity home, conducts the antenatal clinic, and between June and December, 1924, she saw 866 cases. Of this number, 87 were found to be abnormal and to require treatment. One case of severe heart disease was admitted to the home and treated for some time. Labour was induced prematurely and mother and child were discharged in a satisfactory condition. Of 34 cases of disproportion between the head and the pelvis labour was induced in 12 cases. Amongst the other antenatal patients were six cardiac cases, 12 external versions, seven cases of albuminuria, two of antepartum hæmorrhage, one of acute pyelitis, and eight cases of severe varicose veins. Dr. Gamgee conducts an antenatal clinic for cases sent by midwives or doctors. These cases numbered 160 during the year. A real start has therefore been made in preventive midwifery in Hull.

The notifications of encephalitis lethargica numbered 35 and eight deaths were recorded. Ten of these cases were admitted to hospital and several were found to be suffering from some other disease, and in three cases death ensued from other causes Hull has begun in earnest to tackle the conversion of privies and pail-closets to water-closets. The conversions effected during the last four years were 183, 594, 1598, and 5163. The number of privies at the end of 1924 was 10,000 and of pail-closets 22,000.

Newcastle-upon-Tyne.

Dr. H. Kerr reports that, in spite of industrial depression, unemployment, and a slight rise in the cost of living, as a whole the year has been exceptionally healthy. The hours of sunshine recorded at Armstrong College were 728 and at Cockle Park, a few miles north of Morpeth, 1313, showing what is lost by atmospheric pollution. There were 26 deaths from diabetes as compared with 38 in the previous year. The improvement may be due to the introduction of insulin, but, on the other hand, the deaths in 1922 and 1921 were only 28 and 29 respectively. Influenza was prevalent during January and February, and caused 71 deaths. Small-pox appeared in the city for the first time since 1910. There were five mild cases among persons unvaccinated or who were over 30 and had not been revaccinated since infancy. The number of infants vaccinated was 70 per cent. in 1923 and dropped to 61 per cent. in 1924. Of the 28 cases of typhoid fever notified, all except two were traced to the consumption of ice-cream at the coast. At the time of the occurrence there were no by-laws in force for controlling ice-cream manufacture at Tynemouth, and ice-cream was discovered to have been manufactured in a house in which a case of enteric fever had occurred. Eight of the Newcastle cases occurred in a single family of nine persons, of whom three died. These were the only deaths in the city from this disease. There were 96 notifications of encephalitis lethargica and 15 deaths. The type of the disease was more severe than in preceding years, and most of the cases occurred in the poorer and overcrowded quarters of the city. Only in three cases was there evidence of transmission of infection from one member of a family to another. It is considered probable that the mental impairment

which resulted in 19 of the survivors will be permanent.

Dr. A. F. G. Spinks, in the maternity and child welfare report, states that antenatal work makes some progress. Thus 414 expectant mothers attended the six antenatal clinics. The births for the city numbered 6335. The "handy" woman has almost disappeared in Newcastle and all but six of the 43 practising midwives are trained women. The death-rate among illegitimate babies was less than among the legitimate, and it is pointed out that 174 of the 253 illegitimate babies were under the supervision of the centres.

Dr. Kerr points out that men affected by tuberculosis have little chance of obtaining a new house, and suggests that the health committee might subsidise persons of this class to enable them to obtain corporation houses. He emphasises the futility of benefiting the health of the consumptive in the sanatorium and then allowing him to return to appalling home conditions. The health committee is considering the establishment of a workshop where patients returning from the sanatorium could do work according to their limitations. The open-air school on the Pendower Housing Estate became an established fact during the year, but no adequate provision has yet been made by the health committee for surgical tuberculosis. The health committee purchases "Certified" and "Grade A (tuberculin-tested)" milk for the use of the City Hospital, and the agricultural department of Armstrong College is now conducting much local teaching on the farms of the northern counties, and is also organising clean milk competitions. The transport of milk remains unsatisfactory, but the L. and N.E. Railway are said to be considering the adoption of an improved type of milk wagon. The effort to secure the rinsing of empty milk cans before return is making progress. Thus in 1922 2·5 per cent. were found by the inspectors to be unrinsed, in 1923 0·5 per cent., and in 1924 0·2 per cent. The last figure is the result of the examination of 25,015 empty churns. Dr. Kerr has no improvement to report in housing conditions. Only 11 municipal houses were completed during the year, but some hundreds more were in course of construction at the close of the year. 268 houses were erected by private enterprise. "There is still no power," says Dr. Kerr, "to control the cases of heartless profiteering on the part of the exploiters of so-called furnished lodgings."

MENTAL HOSPITAL REPORTS

THE seventy-ninth annual report of the *Devon Mental Hospital* at Exminster is just what such a report should be. Over 1170 patients are accommodated under the charge of four medical officers, and every effort is made to keep the institution in the front rank. The visiting commissioner mentions the many improvements since his previous visit, which include better baths, more stringent precautions in the administration of medicines, and the provision of bed tables, pianos, and aluminium bedroom, kitchen, and table ware. The recovery-rate for the year was 32·29 per cent. and the death-rate 6·92 per cent., a satisfactory decrease on previous years and the lowest on record since 1899. Post-mortem examinations were held on 60 per cent. of the fatal cases. Twenty cases were discharged on trial with money allowances, and parole has been increasingly allowed. There has been a gratifying increase of private patients able to afford a moderate fee and sent in by doctors practising in the county. The sanatorium has been reopened for the isolation of infectious cases; the hospital has been troubled by small epidemics of dysentery and typhoid. The pathological laboratory has carried out the routine work satisfactorily. Blood cultures in the early days of doubtful fevers revealed seven cases of typhoid, which might possibly never have been recognised clinically. A systematic search for the source of the typhoid infection is now being conducted. A new operating theatre was opened in the course of the year, and the hospital has now a full staff of visiting specialists from Exeter, who visit monthly. The dental surgeon, in addition to his routine work of extractions and fillings, examines all new patients on admission. An X ray department will be in full working order shortly. Every effort is made to bring variety and interest into the lives of the patients. No less than 360 went for all-day motor charabanc picnics during the summer, while many others went out for half-day excursions gathering fruit and flowers. During the winter weekly dances and concerts are held, and a Pathé cinematograph and a wireless set have been installed. The patients much appreciate the new ward socials, which allow them to stay up till 9.30 P.M. Fêtes, sports, and games are also included in the programme. The occupational therapy includes printing, weaving, mat-, net-, stocking-, and shoe-making. Patients who wish to wear their own clothes are allowed to do so, and the workhouse type of garment is being done away with as it becomes worn out. Thirty attendants and nurses hold the M.P.A. certificate, and every effort is made to encourage a high standard of nursing, but the universal difficulty in obtaining satisfactory probationers has been experienced.

The ninety-fifth report of the *Belfast Mental Hospital* is illustrated with photographs showing the excellent system of 11 "villas," in which 1000 patients are housed, according to their condition. The recovery-rate for the year was 24 per cent. and the death-rate 7 per cent. There is rather a high proportion of cases of general paralysis (24 males and three females), which accounted for 17·5 per cent. of the deaths. The malarial treatment has continued to prove satisfactory; out of 48 cases treated, 14 were discharged, 12 were well improved, 8 slightly improved, and 6 died. There have been slight outbreaks of influenza and typhoid fever, rapidly checked by isolation. The typhoid has now been traced to the water-supply and a filtration plant installed. Parole and home visits are allowed wherever possible, and there has been no abuse of the privilege; 60 per cent. of the patients are usefully employed on the farm or in the workshops or wards. A new lending library has been formed, and the "tuck shop" gives innocent pleasure.

The *Monmouthshire Asylum* at Abergavenny supports 1140 patients. The present accommodation is not sufficient to allow of satisfactory segregation, although the system of small dormitories allows classification within wards. The recovery-rate was 40·8 per cent., a great improvement on previous years. The death-rate was 6·2 per cent., and there was no epidemic disease except a few cases of influenza. The dietary has been considerably improved. The dentist has been busily employed, but this institution has at present no specialist visiting staff. An instructor is to be engaged this year for those likely to benefit from physical exercises. Every effort is made to find employment for all patients. Forty-two nurses and attendants hold the M.P.A. certificate. All the visitors remark on the contented and domestic atmosphere of the wards.

INFECTIOUS DISEASE IN ENGLAND AND WALES DURING THE WEEK ENDED OCT. 17TH, 1925.

Notifications.—The following cases of infectious disease were notified during the week: Small-pox, 43; scarlet fever, 2382; diphtheria, 1145; enteric fever, 59; pneumonia, 758; puerperal fever, 36; cerebro-spinal fever, 6; acute poliomyelitis, 10; acute polio-encephalitis, 3; encephalitis lethargica, 56; continued fever, 1; dysentery, 5; ophthalmia neonatorum, 86. There were no cases of cholera, plague, or typhus notified during the week.

Deaths.—In the aggregate of great towns, including London, there were 4 deaths from enteric fever, 26 from measles, 17 from scarlet fever, 29 from whooping-cough, 28 from diphtheria, and 47 from influenza, as compared with 57, 51, 41, and 26 in the preceding weeks. In London itself there were 7 deaths from diphtheria, 2 from whooping-cough, and 10 from influenza, as compared with 12, 9, 5, and 7 in the preceding weeks.

Correspondence.

"Audi alteram partem."

ACTIVE IMMUNISATION AGAINST DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—I have pleasure in discussing in more detail the matter dealt with in your annotation of Oct. 3rd. The Austrian Ministry of Health, in response to my suggestion, has recommended that the sale of toxin-antitoxin mixture for active immunisation against diphtheria should not be allowed in Austria. To this recommendation was, however, appended the express condition that the matter should be discussed again, if new methods should be devised, or if such an increase occurred in the number and severity of the cases of diphtheria as to make an active campaign against the disease necessary. Research with new antidiphtheritic methods was not forbidden, only the sale of the preparations.

At present the number of cases of diphtheria is actually so small that the use of intensive measures would not be worth while. We fear that the use, without sufficient grounds, of active immunisation in its present form, which is admittedly not wholly without danger, might compromise all immunisation methods in the public mind, as actually occurred after the recent fatal cases in Baden. Active immunisation is, in any case, not the only means of defence. For the occasional outbreaks of diphtheria of a mild type, with which we have here to do, we find the passive immunity conferred by antidiphtheritic serum entirely satisfactory.

The wish to offer opposition to scientific methods is, needless to say, far from me, for it is just in the prevention of infectious disease that I have always been particularly interested. You will not forget that in your own country the best and most satisfactory of all immunisation methods, that of Jenner himself, is not universally accepted. By pushing the use of methods that have not been fully worked out, one only gives material for opposition to that unscientific section which makes capital out of every failure.—I am, Sir, yours faithfully,

Dr. CLEMENS PIRQUET,
Director of the University Children's Clinic, Wien.
Oct. 21st, 1925.

STANDARDISATION OF BACTERIAL VACCINES.

To the Editor of THE LANCET.

SIR,—In a review of Kolmer and Boerner's "Laboratory Diagnostic Methods," published in THE LANCET of Sept. 19th, p. 606, attention is paid to the nephelometric method of standardising bacterial suspensions, and a preference is expressed for the method of McFarland as compared with that of Brown and Kirwan. The latter was published in the *Indian Journal of Medical Research* in 1915, and was subsequently elaborated in the same journal by the writer in 1919. The main difference between McFarland's method and the other is that in his no allowance is made for the fact that certain organisms are more translucent than others, and the opacity of a certain tube containing a suspension of barium sulphate is stated to be approximately equal to the opacity of a certain definite number of bacteria. In the former paper (Brown and Kirwan, 1915) it was shown that the numerical equivalent of bacterial suspensions of the same opacity varied according to the particular organism under observation.

In my second paper special attention was directed to the fact that the numerical equivalent of bacterial suspensions varied considerably according to the method of standardisation, and I therefore urged that vaccines should be expressed as containing a certain definite weight of dried bacterial substance, a table being given correlating the opacity with the weight of dried bacterial substance for the organisms commonly used in vaccine therapy. Although the dosage of tuberculin has always been expressed in terms of weight, the custom of expressing vaccines in terms of weight instead of number has not come into common use. Cunningham and Timothy realised that a correlation between the opacity and the numerical content of vaccines in common use would probably be more popular than that between weight and opacity, and in a very exhaustive piece of work[1] they correlated, by means of hæmocytometer counts, the number of organisms corresponding to the opacity of the barium sulhpate tubes introduced by Kirwan and myself. These observers performed not less than 30, and, in some instances, as many as 100 counts of 80 small squares for each organism, the readings and opacity values being estimated by the two observers separately. Their findings, therefore, are of extreme value. One very noticeable feature of their results is that for the same opacity there are 2·9 times as many cholera vibrios and three times as many *B. influenzæ* (Pfeiffer) as there are *B. coli*, and other bacteria, too, differ in this respect. This is only what one would expect if in the case of the cholera vibrio the translucency of the organism, and, in the case of *B. influenzæ*, the size is taken into account.

Now both these organisms are commonly used in the manufacture of vaccines, and therefore it would seem that the method of standardisation advocated by McFarland is capable of giving at least a 300 per cent. error if no allowance is made for the variations in opacity produced by the same numerical equivalents of a vaccine per unit volume. Regarding the comparative simplicity of the two methods, in the one which we advocate there are ten tubes containing varying dilutions of barium sulphate, the opacity of which is compared with a similar tube containing the vaccine; the result is then read either in terms of weight of dried bacterial substance per cubic centimetre or by means of Cunningham and Timothy's table as number in millions per cubic centimetre, as counted by the hæmocytometer method. The procedure of standardising vaccines by this method can easily be accomplished in three minutes. It, therefore, cannot be considered complicated, and with the help of Cunningham and Timothy's table it is hoped that one man's million will no longer be another man's thousand.—I am, Sir, yours faithfully,

H. C. BROWN,
Major, I.M.S. (retd.).
Wellcome Bureau of Scientific Research, Oct. 15th, 1925.

AWARENESS OF THE BODY SURFACE.

To the Editor of THE LANCET.

SIR,—Normally, one is only aware of the surface of the body when attention is drawn to it, or when one thinks about a special part. The receptors of the superficial parts of the body have a threshold of resistance that unless a stimulus for which they are adapted occurs, such as pain, touch, or temperature, no sensations arise. By usage we come to neglect the ordinary stimuli caused by clothing, &c., and we are not aware of it unless some special discomfort arises. Hence, awareness of the body surface does not normally occupy consciousness. I have recently seen a case where the patient complained of excessive "awareness" of the surface of the body.

The patient, an intelligent woman of 52 with a neurotic temperament, complained that she became tired on doing a slight amount of work, and that she had to lie down for the greater part of the day. She slept badly, was subject to fits of depression, and felt that she could take no interest in anything. On questioning her, she said that for some time she has had this uncomfortable sensation of awareness of the presence of every part of the surface of her body. She said that this seemed to occupy her whole consciousness and prevented her from concentrating on anything. The sensation was worse on the body and limbs, and least on

[1] Indian Journal of Medical Research, 1924, p. 1253.

the hands, feet, and face. She did not complain of pain although she said that she bruised readily. On examination she had a very marked diffuse panniculitis affecting practically all the subcutaneous tissue. Some parts were tender on pressure, and here fibrous nodules were present, but in the main the condition seemed to be a diffuse infiltration of the subcutaneous tissues. The skin could not be picked up in a fold and it was tightly adherent to the subcutaneous fat. Any handling of it gave rise to a sensation of soreness, and left a bright red flush which lasted for a considerable time.

The generalised thickening of the subcutaneous tissues will involve the superficial nerves, and they are bound down by the inflammatory tissue to the skin and to the muscular aponeuroses. The continual slight movements present in muscles in a state of postural tone will stimulate the nerves embedded in this tissue, and stimuli will be constantly entering the nervous system from all parts of the body surface affected by the condition. There is probably, in addition, a susceptible state of the nervous system, or a condition of lowered resistance to stimulation. From this arises the consciousness of the different regions of the body surface. It is easy to understand that this continual awareness of the body surface would occupy a large part of the conscious field, and render concentration on anything almost impossible.

This case is of interest as showing the physical basis for what would at first appear to be merely a neurotic manifestation.

I am, Sir, yours faithfully,

HECTOR M. WALKER, M.D.

Harrow, Oct. 15th, 1925.

PIONEERS IN TROPICAL MEDICINE.

To the Editor of THE LANCET.

SIR,—With reference to the very kind annotation in THE LANCET for Oct. 24th of my presidential address on the above subject to the Royal Society of Tropical Medicine and Hygiene, may I, in justice to the memory of a great and good man, point out that I did not describe Sir John Pringle as pursy and peppery? I said he looked pursy and peppery in his portrait. This is a very different matter, for portraits, especially reprints of portraits painted in the eighteenth century, may not always give a correct reproduction of the original. As a matter of fact I went on to show that Pringle's portrait belied his character, for he was in every respect a very fine man, and there is no indication that he was either peppery or pursy, although, as I said, there was plenty to make him peppery! I should also, perhaps, state that George Biddy of your annotation should be George *Bidie*, this being the way in which the distinguished surgeon-general of the Madras Presidency spelt his name. Benjamin Rush no doubt did his best to quell the outbreak of yellow fever in Philadelphia in 1793, though, in the absence of precise knowledge as to its method of spread, he could not accomplish very much in this direction, but his chief claim to fame is that, during that epidemic, he formed the opinion that the disease was not contagious.

I am, Sir, yours faithfully,

ANDREW BALFOUR.

London School of Hygiene and Tropical Medicine, Endsleigh-gardens, N.W., Oct. 23rd, 1925.

*** Pringle's magnificent services to medicine and in particular to military hygiene could not have been rendered unless his face had belied him. He was in many ways far in advance of his time, and may be said to have foreshadowed the Geneva Convention of our own day. Although Benjamin Rush had no exact knowledge as to how yellow fever was spread, his belief that it was the result of filth in the streets of Philadelphia was so faithfully proclaimed as to cause the greatest anger among the citizens, and incidentally to clear up the nuisance. We are glad to learn that Dr. Balfour's informing address will be available in full in the *Journal of Tropical Medicine and Hygiene* when it appears. —ED. L.

X RAYING OF TEETH: THE LATEST CRAZE.

To the Editor of THE LANCET.

SIR,—Have any of your readers, whose patients' teeth have been X rayed, ever received a report that there was nothing amiss with the teeth? Judging by my experience, everyone whose apparently sound teeth are X rayed is said to have diseased ones. Two of my patients recently went to an oculist. He had their teeth X rayed. A patient went to an aurist and one to a laryngologist; they had their teeth X rayed also. The verdict in each case was that several teeth ought to be extracted. All these patients had more or less recently seen their dentists, who had found nothing wrong with their teeth. One can only wonder how any of the lower classes can see or hear or smell! This tooth-extracting mania seemed to be a good deal on the wane, chiefly, I take it, because doctors with the largest experience of "rheumatic" conditions thought it had been greatly abused. But since this X raying of teeth came into fashion the madness is worse than ever. I am informed that continental medical men do not attribute anything like the same importance to the condition of the teeth as we do, and think we have gone crazy on the subject. I am disposed to agree with them.

I am, Sir, yours faithfully,

Cadogan-place, S.W., Oct. 20th, 1925. GOULD MAY.

*** On another page we review a very important book by Dr. Weston Price, of Cleveland, Ohio, which deals exhaustively with the fallacy of judging the degree of dental infection simply from study of a radiogram. The existence of apical rarefaction is not enough to condemn a tooth and he refutes the assumption prevalent in America, that these rarefied areas denote a menace to general health proportional to the degree of bony absorption.—ED. L.

HOSPITALS, GENERAL AND SPECIAL.

To the Editor of THE LANCET.

SIR,—I have read with much interest Mr. Bishop Harman's article in THE LANCET of Oct. 17th. I would like, however, to correct him on one point. Mr. Harman writes: "There is at Charing Cross in London a large general hospital with its own eye department and next door to it there is an eye hospital." As a matter of fact, there is no eye department at Charing Cross Hospital. Some few years ago a working arrangement was come to between the Royal Westminster Ophthalmic Hospital and Charing Cross Hospital by which the latter closed its eye department, small as it was, and the few patients on its books were transferred to this hospital. The staff of this hospital undertook to teach ophthalmology to the students of Charing Cross Hospital Medical School (last year 43 students attended the practice), and a member of the staff was appointed a lecturer to their medical school. In exchange we can call upon their general staff to treat our patients apart from eye diseases, and, if necessary, our in-patients who develop complaints other than "eyes" can be transferred to Charing Cross Hospital for in-patient treatment. Thus there is the daily contact between the specialist and the general surgeon and physician which Mr. Harman advocates. We have here two institutions, working side by side, each carrying on its separate sphere of work in an efficient manner.

As a lay officer to a special hospital of nearly 30 years' experience I may be biased, but I am of opinion that our general hospitals, as at present constituted, could not possibly cope with the vast influx of "special" patients. For instance, in 1924 the five ophthalmic hospitals of London treated 107,792 out-patients, representing 271,819 attendances, with a total of 222 occupied beds. They could not be absorbed in general hospitals. Moreover, the patient is a factor that must be taken into account. It is an undoubted fact that in this age of specialism the patient prefers to go to a special hospital, dealing solely with the complaint from which he may be

suffering, whether it is eyes, nose and throat, and so forth.

Again, the special departments of our general hospitals are nothing like so well equipped as the special hospitals. Generally speaking, patients can only attend once or twice a week at the most, against a daily attendance in a special hospital, and taking "eyes" alone, I know of general hospitals where the eye specialist is lucky if he can get six beds set apart for his use. The whole question, if I may use the expression, boils down to the point, What do the patients want? And the answer is that so long as the special hospitals carry on their work in an efficient manner, keeping abreast with the times, so long will they be in demand by the public.

I am, Sir, yours faithfully,

J. H. JOHNSON,
Secretary, Royal Westminster Ophthalmic Hospital, W.C.

Oct. 19th, 1925.

*** We have submitted Captain Johnson's letter to Mr. Harman, who writes: "The change in the arrangements between the Royal Westminster Ophthalmic and Charing Cross Hospital was not known to me. I had in mind the time when Mr. Treacher Collins was the eye surgeon at the latter hospital. But the point, had I known it, would only have made me the more able to drive home the lesson I was striving to bring out. That the R.W.O. Hospital and the general hospital next door have a working arrangement is the better plan and that which I stated was coming into play in place of which I had information."—ED. L.

RESPIRATORY CATARRH IN CHILDREN.

To the Editor of THE LANCET.

SIR,—It is most cheering, for such views are still rare, to read Dr. R. C. Clarke's article in your issue of last week, in which he recommends, as a preventive for nasal catarrh, that children should live in the open air or in a draught. I can endorse his experience that under such conditions they do not suffer inconvenience from feeling cold. My own children, when not out of doors, live and sleep in draughts in all weathers, and I have been surprised to find how little clothing they require for warmth and comfort. They never "catch cold" unless brought into contact with people suffering from nasal catarrh, and this chiefly when school life begins. One would like to see all schools built for open-air life on the lines of the hospitals being erected for the treatment of tuberculosis and rickets by direct sunlight.

With regard to babies being bathed in a room with the windows open, I think that mothers and nurses who fear the danger of exposure to cold should be reminded that they leave out of calculation the time element. A baby left naked on the lawn all night will be found dead in the morning, but the effect of cold moving air on the bare skin of a healthy kicking infant for five minutes will only have a bracing effect.

I am, Sir, yours faithfully,

IVY E. HASLAM, M.D., M.R.C.P.

Bromley, Kent, Oct. 26th, 1925.

PREMATURE BURIAL.

To the Editor of THE LANCET.

SIR,—The possibilities of premature burial under existing circumstances are extremely remote, but the mere fact that such a possibility exists is a matter of grave import to the peace of mind of many of the living, as evidenced by the periodical recurrence of the question, which so far has elicited no definite solution. I cannot but think, however, that if the following suggestion were generally adopted as part of the preparation for burial, there would be no further need for any anxiety on this score.

The coffin should be made deep enough for the body, when in situ, to be an inch and a half to two inches below the level of the rim. A thick layer of sawdust is spread at the bottom of the coffin, banking up towards the sides, and on this the lightly clothed body is placed. Then some 12 hours before the coffin is closed down it should be filled carefully with sawdust up to the level of the rim, the face having been previously covered with a soft fabric. It must be seen to that the sawdust fills every interstice around the body, and that it is well and thoroughly pressed down. The coffin is then left without the lid. A special face cloth could be devised reinforced in the part that would cover the mouth and nostrils, so that in case of a sudden gulp the fabric should not form wedge or rupture.

I think it is safe to say that however slow the ebb of life, however deep the state of attenuated animation, no human being, thus hermetically isolated, could live for an hour, probably not for 15 minutes, without that struggle for air being brought about which would cause the person to raise himself up and be restored to the freedom of life.—I am, Sir, yours faithfully,

L. VINTRAS,
Consulting Physician to the French Hospital.

Oct. 21st, 1925.

LUMINAL, BORAX, OR BROMIDE IN EPILEPSY.

To the Editor of THE LANCET.

SIR,—May I suggest that the value of Dr. C. Worster-Drought's prescription for epilepsy (sodium bromide and sodium biborate) might be enhanced in the case of some patients at least, by the addition of, say, ten drops of the tincture of nux vomica? Probably the best routine mixture for epilepsy is one containing these three drugs. I do not advocate the addition of arsenic as a matter of routine, as some patients can take considerable quantities of bromide for years without suffering any serious inconvenience from pustules. As to the value of luminal, either alone or in addition to the bromide mixture, there can be no doubt. Only by carefully experimenting is it possible to discover the most suitable combination of drugs and their dose for individual cases.

I am, Sir, yours faithfully,

Harley-street, W., Oct. 26th, 1925. HARRY CAMPBELL.

The Services.

ROYAL NAVAL MEDICAL SERVICE.

Surg.-Comdr. W. E. Ormsby is placed on Retd. List with the rank of Surg. Capt.

Surg. Capt. H. S. Burniston is placed on the Retd. List with rank of Surg. Rear-Admiral.

ROYAL ARMY MEDICAL CORPS.

Maj. E. M. J. O'Farrell to be Temp. Capt. and temporarily relinquishes the rank of Maj.

Lt. W. Boyd, late R.F.A. (Spec. Res.), to be Lt.

MILITIA.

Maj. H. H. Brown relinquishes his commn. and retains the rank of Maj.

TERRITORIAL ARMY.

Capt. R. C. Aitchison (R. of O.) to be Maj.

Supernumerary for Service with the O.T.C.—Majs. G. A. Williamson and H. Emerson resign their commns. and retain their rank.

Lt. C. J. A. Woodside resigns his commn. and is granted the rank of Capt.

Lt. R. E. Holme to be Lt.

ROYAL AIR FORCE.

R. J. K. Chattey is granted a short service commission as a Flying Officer for three years on the Active List.

INDIAN MEDICAL SERVICE.

Lt.-Col. A. Fenton to be Col.

Majs. B. E. M. Newland, L. A. H. Lack, Narendra Singh Sodhi, and W. C. Gray to be Lt.-Cols.

The Admiralty have published the limits of the promotion zones for the half-yearly advancements of commanders in the medical branches of the Service. Surgeon-commanders must be of eight years' seniority and over on the date of selection.

Medical News.

UNIVERSITY OF LONDON.—At a meeting of the Senate held on Oct. 21st, Prof. E. A. Gardner, the Vice-Chancellor, being in the chair, the following bequests were accepted: From the late Sir Rickman Godlee, Bt., a legacy by which, after the death of his wife, one moiety of his residuary estate is given to University College and the other moiety of his residuary estate to University College Hospital. From the late Miss L. S. Gibbs, in memory of her mother, the sum of £150 per annum to be devoted to the establishment of a studentship, to be called "the Laura de Saliceto Studentship," for the advancement of cancer research, either on the physiological or the chemical side.

THE SEMON LECTURE: UNIVERSITY OF LONDON.—Dr. Patrick Watson-Williams (of the University of Bristol) will deliver a lecture on the Toll of Chronic Nasal Focal Sepsis on Body and Mind in the Lecture Hall of the Royal Society of Medicine, 1, Wimpole-street, W., on Thursday, Nov. 5th, at 5 P.M. The chair will be taken by Sir William Milligan. A reception will be held at 4.30 P.M., prior to the lecture.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Bradshaw Lecture will be delivered on Nov. 11th by Mr. James Sherren, the subject being Gastro-jejunostomy, and the Thomas Vicary Lecture on Nov. 18th by Prof. William Wright, who will take for his subject the Mediæval Conception of the Anatomy and Physiology of the Central Nervous System. Both lectures will begin at 5 P.M.

QUEEN CHARLOTTE'S MATERNITY HOSPITAL: POST-GRADUATE LECTURES.—The following series of post-graduate lectures will be delivered at Queen Charlotte's Maternity Hospital, Marylebone-road, N.W., during November and December on Thursdays at 5 P.M.: Nov. 5th, Mr. A. W. Bourne, Common Obstetric Difficulties; Nov. 12th, Mr. T. Stevens, Meddlesome Midwifery; Nov. 19th, Mr. T. B. Davies, Clinical Aspects of Abortion; Nov. 26th, Mr. L. Roberts, Conditions Leading to Obstructed Labour; Dec. 3rd, Mr. L. C. Rivett, Antepartum Hæmorrhage; Dec. 10th, Mr. L. Phillips, The Failed Forceps Case; Dec. 17th, Mr. Leslie Williams, Albuminuria of Pregnancy.

JOINT TUBERCULOSIS COUNCIL: POST-GRADUATE COURSES.—During September two courses of study in tuberculosis were arranged by the council in consultation with the Ministry of Health, as follows:—(1) A course of two weeks' duration in the pathology and bacteriology of tuberculosis conducted by Dr. Roodhouse Gloyne at the City of London Hospital for Diseases of the Heart and Lungs, Victoria Park, limited to six members. (2) A course in non-pulmonary tuberculosis of one week's duration. Demonstrations were held during the week at Heatherwood Hospital, Ascot; Queen Mary's Hospital, Carshalton; the Dermatological Department of the London Hospital; the Royal College of Surgeons; All Saints Hospital for Genito-Urinary Diseases; Wingfield Orthopædic Hospital, Oxford. The class was limited to 30 members. The courses were very well attended and it is the intention of the Joint Tuberculosis Council to arrange post-graduate courses to be held in 1926. A syllabus will be issued in January.

FELLOWSHIP OF MEDICINE AND POST-GRADUATE MEDICAL ASSOCIATION.—Dr. J. Campbell McClure will lecture for the Fellowship of Medicine on Monday, Nov. 2nd, at 5.30 P.M., in the Lecture Hall of the Medical Society of London, 11, Chandos-street, W. His subject will be the Climatic Treatment of Tuberculosis, and all members of the medical profession are welcome to attend. Throughout the month of November the London Lock Hospital will hold a comprehensive course dealing with the Study of Venereal Disease, and as the course is only held if there be a sufficient entry early application is requested. There will be a three weeks' course in Gynæcology at the Chelsea Hospital for Women from Nov. 2nd to the 21st, consisting of demonstrations in the theatre, wards, &c. From Nov. 3rd to the 28th Dr. Porter Phillips and Dr. Thomas Beaton will give twice weekly lecture-demonstrations on Psychological Medicine at the Bethlem Royal Hospital. At the Victoria Park Hospital a course will be held in Diseases of the Chest from Nov. 9th to the 21st. From Nov. 23rd to Dec. 12th the Royal Waterloo Hospital will hold a course in Medicine, Surgery, and Gynæcology, embracing the various departments pertaining to diseases of women and children. A late afternoon course (4.30 to 6 o'clock) will take place at the London Temperance Hospital from Nov. 23rd to Dec. 4th for the benefit of the general practitioner. Copies of the syllabus of these courses, as also the general programme, may be obtained from the Secretary to the Fellowship of Medicine at 1, Wimpole-street, London, W. 1.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, and ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following candidates have passed the Triple Qualification Examination:—

FINAL EXAMINATION.

Alistair G. Cruikshank, Kristian Skulberg, Ian E. Direkze, William A. F. Hurst, Jack Greenstein, Cecil J. R. Morrison, Nathanael J. Knoesen, William A. N. Chanmugam, Archie N. Tong, Isadore Kovolman, Cheng Leng Tan, David Lumsden, Thiam Hock Wee, Coruvakankanage Don Martinus Madappuli, Alfred A. Labinjoh, David D. H. Craig, Irma E. L. Law, Joseph W. McVicker, James Hasson, Constance C. Reid, Ella D. Messenger, John S. Whiteside, Thomas W. Chapman, Cassaly Ismail, John R. Hetherington, Appacuttiar B. C. Doray, Jack Cohen, Mary A. McGill, Tom G. S. Harkness, Louis G. Blaze, Albert E. Williamson, George R. Mitchell, and Arumugam Wyramuttoo Rasiah.

Medicine.—James K. Steel, Robert H. McKinnon, and Marian E. Owen-Morris.

Surgery.—Robert W. Schuch, William McKim, and James W. Wylie.

Midwifery.—James K. Steel, Collin H. Wickremesinghe, Moss M. Bronstein, Robert W. Schuch, William McKim, Joseph B. Stromier, James W. Wylie, John L. Dearberg, Alexander Rankin, Asit Chandra Bagchi, Charles E. Millen, Catherine Millar, and William T. Baker.

Medical Jurisprudence.—John J. Gilchrist, Manikkathuppahige Thosius Fernando, Stephen B. Stoker, Arthur G. Young, Abdalla Abdel Razzak, Labib Abdel Malik-Mansour, Ian G. Sutherland, George R. Day, Ronald A. Paton, Thomas G. McIntyre, Thomas B. Dobson, Archibald Maxton, Alexander S. Speirs, Maud Heaton, William B. Anderson, John T. W. Gale, John Williams, Gwendoline R. Andrews, James Hendry, William Read, and William W. McGlashan.

DIPLOMA IN PUBLIC HEALTH.

Edwin D. M. Wallace, Malcolm J. Miller, Violet Oswald, Charles Melville, Elizabeth W. Miller, Marjorie H. Mitchell, George A. Pollock, William R. Logan, Jeanie M. Strathie, Jane T. Gilmour, Elsie B. Dickinson, and William B. Watson.

Part I.—George B. Walker, David Robertson, John H. D. Lawrie, David W. C. Tough, Ralph S. Begbie, Desmond S. Malone, Jacobus Johannes de Waal, and Khwaja Samad Shah.

Part II.—Jessie G. Service.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—At a meeting of the College on Oct. 21st, Dr. Arthur Logan Turner was elected President for the ensuing year, Sir David Wallace Vice-President, and Mr. Alexander Miles Secretary and Treasurer.—Mr. David Middleton Greig was awarded the Liston Victoria Jubilee Prize of £100 in recognition of his contributions to practical surgery and surgical pathology.—The following 28 successful candidates, out of 61 entered, who passed the requisite examinations between July 6th and 13th, were admitted Fellows:—

James C. Anderson, Jack R. S. G. Beard, John M. Black, Cecil R. Childs, Bruce M. Dick, Charles S. Fraser, Robert L. Galloway, Israel Goldberg, Robert Grant, John D. Grierson, Dorothy W. Hall, Frederick J. S. Hall, Oscer M. Irwin, Harold W. Johnston, Matilda John, Philip C. Livingston, William J. Macdonald, Harold J. Malkin, Subodh Mitra, John S. Moore, Chandiram H. Primlani, Arnold R. Richards, James H. Robertson, Ronald G. Shackleton, John H. Shaw, Maurice Sourasky, Denis B. Whitlock, and Arthur C. K. Yates.

Dr. Einer Wesley Johnson U.S.A., having passed the requisite examination on Sept. 30th, obtained the diploma of Licentiate of the College.

At recent examinations, out of 20 candidates entered, the following 14 passed the Final Professional Dental Examination and were granted the diploma L.D.S. R.C.S. Edin.:—

John Baker, Philip Henry, Roberta J. T. Morris, Jean Y. Andrew, Henry W. Bambridge, Andrew S. Irving, William C. Archibald, George M. Brown, Noel A. Reid, Evelyn Richardson, Dorothy J. O. Mitchell, Malcolm McDonald, Leslie V. Sherrin, and Harry W. Stewart.

The following candidates passed in the subjects indicated:—

Pathology.—Thomas T. Jamieson, Hector Archibald, and John E. McNicol.

Medicine.—Thomas T. Jamieson and Herbert F. Simpson.

Surgery.—Hector Archibald and John E. McNicol.

ROYAL COMMISSION ON NATIONAL HEALTH INSURANCE.—The forty-second meeting of the Commission was held at the Home Office, Whitehall, on Oct. 22nd and 23rd, Lord Lawrence of Kingsgate being in the chair on the 22nd and Sir Arthur Worley on the 23rd. Evidence was given by Mr. J. G. F. Price, Principal Assistant Secretary, Ministry of Labour, on the question of utilising the employment exchanges to certify genuine unemployment for the purpose of dealing more generously with the problem of the arrears penalties under the Health Insurance Scheme. Thereafter Sir Walter Kinnear, Controller of the Insurance Department of the Ministry of Health, Mr. L. G. Brock, Principal Assistant Secretary, and Dr. J. Smith Whitaker, Senior Medical Officer of the Ministry, were examined on a wide range of questions affecting Health Insurance on its administrative and medical sides.

ROYAL SOCIETY OF ARTS.—The next session of this society will be opened on Wednesday, Nov. 4th, at 8.30 P.M., at John-street, Adelphi, London, W.C., when the inaugural address will be delivered by Sir Thomas H. Holland, F.R.S., Chairman of the Council, the subject being the Organisation of Scientific Research Throughout the Empire.

MEDICAL PRACTITIONERS UNION.—A Special Conference on Disciplinary Procedure under the Health Insurance Acts was held by the Union at the Russell Hotel on Oct. 21st. At the afternoon sitting there was an attendance of about 35, and about 20 local medical and panel committees sent representatives. At the close of the proceedings these representatives, together with the chairman (Dr. A. E. Gregg), the secretary (Dr. A. Welply), Dr. Gordon Ward, and the solicitor to the Union (Mr. S. G. Davis), were appointed to form a deputation to lay before the Minister of Health the following resolutions passed at the Conference :—

Proceedings Prior to Hearing.—This Conference is of opinion (*a*) that when comments are invited from a doctor in order to facilitate a decision as to whether a formal hearing is desired the invitation should be accompanied by a warning that the comments supplied are likely to be considered by two statutory committees, and may form the basis of a demand for disciplinary action by the Minister; (*b*) that before a hearing is arranged, any charge against a doctor should be defined in writing and should state in every case which of the regulations or terms of service is alleged to have been infringed and in what respect the same have been infringed; and (*c*) that the rules relating to complaints are now so generally known that ignorance of them should no longer be allowed as an excuse for delaying notice of a complaint for more than six weeks after the event in which it originated.

Medical Service Subcommittee.—This Conference is of the opinion (*a*) that the proceedings of the Medical Service Subcommittee should be strictly confined to the charge already formulated; (*b*) that a medical service subcommittee ought not to found its report, in whole or in part, on evidence to which the practitioner concerned has had no opportunity to reply; and (*c*) that medical service subcommittees are not suitably constituted for the determination of scientific questions such as frequently come before them.

Removal from Panel.—This Conference is of the opinion (*a*) that successful defendants in these proceedings should be given costs as against the Insurance or other complainant committee on the same scale as those awarded the latter when the doctor's plea fails; (*b*) that there is nothing in the regulations which can excuse the action of the Ministry in withdrawing from the purview of inquiry committees the right to draw inferences of fact as to the question of a practitioner's fitness to remain on the panel; (*c*) that the action of the Minister in permitting inquiry committees to refuse evidence of general good repute is entirely indefensible on moral or legal grounds. This Conference protests against the action of the Ministry in hearing evidence which has come to hand subsequently to the sitting of an inquiry committee and which the practitioner can neither know of nor obtain opportunity to rebut. Particular objection is taken to the hearing in this manner of expert evidence tendered in opposition to the practitioner.

Procedure on Appeal.—This Conference is of the opinion that (*a*) appeal tribunals should be composed of absolutely independent persons not identified in any way with the administration of the National Health Insurance Acts; (*b*) that an appeal tribunal should hear the case de novo and should not have before it any evidence not taken on oath, or otherwise not properly admissible in a Court of Law; (*c*) that the Minister's decision should be such as is consistent with the report of the Appeal Tribunal; (*d*) that the report of the Appeal Tribunal should be promulgated within seven days of the conclusion of the hearing; and (*e*) that the decision of the Minister following appeal or after hearing of representations should be given within one week after the promulgation of the report.

General.—(*a*) This Conference is of the opinion that the standard of service contemplated by the National Health Insurance Acts is the standard enforced by the Courts and no other, and protests against the action of the Ministry in setting up a different standard. (*b*) This Conference calls attention to the great expense in time and money to which a practitioner may be put in defending himself on the same charge before three different tribunals—namely, the Minister, the General Medical Council, and the ordinary courts. (*c*) This Conference recommends that the medical benefit regulations should provide for a general right of appeal to the courts. (*d*) This Conference is of the opinion that the evidence given before it affords ample witness to the injustice of much of the procedure relating to complaints both in theory and in many particular instances, and strongly recommends to the Minister the setting up of a committee, including representatives of this Conference, to report what alterations are desirable.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS.—On Wednesday, Nov. 4th, at 7 P.M., a paper on the Modern Development of Combustion Recording will be read by Mr. J. J. Lassen at Caxton Hall, Caxton-street, Westminster, S.W.

BRITISH MEDICAL ASSOCIATION: COUNCIL DINNER. The fourth annual Council dinner of the British Medical Association was held on Oct. 21st in the Great Hall of the new B.M.A. House, and Dr. R. A. Bolam, who was in the chair, spoke of the pleasure which it gave the officers of the Association to be able to entertain their guests in their own house. The toast of the "Retiring President," proposed with humour and feeling by Sir Richard Luce, gave Mr. J. Basil Hall the opportunity to describe some of the incidents of two happy and busy years. As ambassador for the Association to the Canadian Medical Association and the American Medical Association Mr. Hall had made a happy impression on the other side of the water by his tact and native wit. The "Common Health" was proposed by Sir Thomas Horder, who sketched the diminished mortality of the last 25 years and remarked on the training in preventive medicine obtained by 14,000 panel practitioners who for 12 years past had practised on a system by which they were paid better when their patients were well than when they were ill. He voiced the need for a properly equipped and well-staffed post-graduate school, and concluded an eloquent speech with the three words—education, organisation, coöperation. Captain O. E. Warburg, the Chairman of the London County Council, spoke of the fulfilment of the Council's aim to coöperate with the medical profession in the conduct of school and special clinics. Mr. S. P. Vivian, Registrar-General, also responded. Mr. E. B. Turner, in proposing "Our Guests," specially welcomed two distinguished visitors from South Africa, Dr. W. Watkins-Pitchford and Dr. A. J. Orenstein. Sir Kingsley Wood, who responded, spoke of progress in national health as due largely to a partnership between the State, the local authorities, the medical profession, and the great voluntary agencies. He was himself a believer in voluntary health service; too many people, he thought, were looking to the State for things that they ought to be doing themselves. Voluntary effort was the pride of this country and the general practitioner the backbone of medical organisation. Sir Holburt Waring, who also replied, hoped soon to see an amendment to the Medical Act whereby treatment of disease was limited to men having a proper medical education. Dr. C. E. Douglas proposed "The Chairman," and Dr. Bolam, in responding, foreshadowed his intention shortly to retire from the onerous position which he has ably filled for so long. Dr. Alfred Cox was incited to speak a few words regarding his impending visit to South Africa. An admirable programme of music filled in the intervals.

AT a general meeting of the Surrey branch of the British Medical Association (Kingston-on-Thames Division), to be held at Surbiton Hospital on Tuesday, Nov. 3rd, at 8.45 P.M., an address will be delivered by Dr. Norman Haire on Birth Control and Contraceptive Methods.

ORTHOPÆDIC AFTER-CARE.—As the outcome of the work of the Shropshire Orthopædic Hospital and the Agnes Hunt Surgical Home at Oswestry, an after-care committee for Shrewsbury and the district has just been formed. From a wooden shelter erected by Miss Agnes Hunt in her garden 25 years ago, orthopædic work in Shropshire has developed until the hospital contains 300 beds. Shrewsbury was the first town in the world to open a clinic for cripples.

LANCASHIRE INSURANCE COMMITTEE AND THE SPAHLINGER TREATMENT OF TUBERCULOSIS.—On Oct. 19th at Preston the Lancashire Insurance Committee discussed at length a recommendation from its Spahlinger Committee that a conference of representatives of insurance, public health, approved society, tuberculosis and panel committees in Lancashire be called with a view to action being taken in regard to the Spahlinger treatment for tuberculosis. A report from Dr. G. L. Cox, county tuberculosis officer, was read, in which Dr. Cox suggested that the only way to solve the question was an extended trial through the Medical Research Council and the Joint Tuberculosis Council for England and Wales and through them by the tuberculosis branch of the public health service. A letter was read from the Ministry of Health, dated Oct. 31st, 1923, in which, referring to the visit of a deputation from the Lancashire Insurance Committee, it was clearly stated that the committee could not spend money from its funds on an inquiry into the treatment. Ultimately the committee passed a resolution that a meeting of representatives of the various committees in the county interested be called to hear addresses with a view to their reporting to their respective committees.

ROYAL SOCIETY OF MEDICINE.—Commencing on Tuesday, Nov. 3rd, the Library of the Royal Society of Medicine will be kept open until 10 P.M. on two evenings of the week—namely, Tuesdays and Fridays.

LONDON HOSPITAL MEDICAL COLLEGE. — The Schorstein Memorial Lecture will be delivered by Sir Humphry Rolleston on Friday, Dec. 4th, at 4.15 P.M., in the Anatomical Theatre of the College. The subject will be Lymphadenoma.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL EXTENSION.—A scheme for the erection of an annexe to this hospital is in progress, and it is hoped in the near future to take down some old property at the corner of Hill-street and erect on the site a four-storey building close to the hospital, which would provide extra accommodation for the staff and 20 additional beds for patients.

HACKNEY MATERNITY CENTRE.—The Duchess of York last week opened a maternity and child welfare centre in Lower Clapton-road, Hackney, which, it is hoped, will greatly facilitate work which has been going on steadily for a long time past. So successful has this work been that, although Hackney has a population exceeding a quarter of a million and an average of 5000 births a year, last year it had the lowest infantile death-rate on record.

CANCER HOSPITAL, FULHAM-ROAD, LONDON.—The Duke of Connaught last week opened two new theatres which have been provided at this hospital in memory of the late Sir Charles Ryall, who was surgeon there from 1898 to 1922. The theatres, which are on the top floor, are arranged as one unit, so that while one of them is occupied the other can be got ready for another operation. The galleries for the students run from end to end of the building, the anæsthetic rooms and other appurtenances being close at hand. The work involved the construction of a new maids' home, the old one having been absorbed by the alterations. Consequently the cost reached £50,000.

JUDGMENT FOR DURBAN DOCTOR.—Our South African correspondent writes: Before Mr. Justice Carter and a special jury the case was concluded at Durban on Sept. 26th, in which Margaret Scott Ferguson, proprietress of a boarding-house at Isipingo, near Durban, sued Dr. C. D. Relton, of Durban, for £1599 damages for alleged wrongful incarceration in the mental hospital, Pietermaritzburg. A verdict was given for the defendant, with costs. The jury recommended the desirability of establishing an observation ward, to be apart from the mental hospital, so that patients could stay there prior to their removal to the hospital itself. Mr. Justice Carter commented favourably on the jury's recommendation.

NEWCASTLE: POST-GRADUATE STUDY.—The general course of post-graduate study, which commenced at the Royal Victoria Infirmary on Oct. 1st, is being attended by 51 practitioners. The meetings are held on Thursday afternoons, and instruction is given each day in clinical medicine, clinical surgery and pathology, including post-mortem demonstrations. Three special lectures have been arranged as part of the general course, the first of which, on the Post-Operative Treatment of Tonsils and Adenoids, was delivered by Dr. J. Dunlop Lickley on Oct. 1st. Dr. R. A. Bolam will lecture on Nov. 5th on the Present Day Treatment of Syphilis, and Prof. David Burns will give the third lecture on Dec. 3rd on Insulin. A special course in midwifery and gynæcology is being conducted at the Princess Mary Maternity Hospital by Prof. Ranken Lyle and Dr. E. Farquhar Murray. In addition to these courses, which form part of the routine post-graduate instruction of the University of Durham, an intensive course of a fortnight's duration commenced on Oct. 12th. This course was arranged in conjunction with the Ministry of Health and the Northumberland Panel Committee for the benefit of panel practitioners in the rural areas of Northumberland, and was limited to 12 members, who were selected from the applicants by the Northumberland Panel Committee. The Panel Committee, after careful consideration, elected to expend in this way part of their share of the special £10,000 fund, which was also applied to the provision of locums for the members of the class. A very comprehensive syllabus comprising some 60 lectures and demonstrations was arranged, occupying each morning and afternoon. The first hour of each day was devoted to a course of clinical pathology designed to meet the requirements of general practitioners. The remaining hours were occupied by classes in medicine, surgery, midwifery, gynæcology, eye diseases, diseases of infancy, and so forth, the individual subjects being selected with the object of enabling the members to understand the significance and practical application of recent advances in knowledge. The instruction was essentially clinical, and the limited size of the class facilitated the examination of a large number of cases by each member.

GUEST HOSPITAL AND EYE INFIRMARY, DUDLEY.—The recent bazaar for the liquidation of the debt upon this institution has produced a net profit of £14,117.

THE Editor of the "Medical Who's Who" asks us to request all practitioners not having done so to return their forms immediately to 8, Stone Buildings, Lincoln's Inn. The 1926 edition is now going to press, and will, it is expected, be ready early in the New Year.

RONTGEN SOCIETY.—A general meeting of this society will be held on Tuesday, Nov. 3rd, at 8.15 P.M., in the British Institute of Radiology, 32, Welbeck-street, London, W., when Mr. F. W. Aston, D.Sc., F.R.S., will deliver his presidential address on Atoms and X Rays.

COLWYN BAY HOSPITAL.—The new Colwyn Bay and West Denbighshire Hospital was opened on Oct. 17th by Lord Colwyn. It has developed from the smaller hospital erected about a quarter of a century ago. There are in all 60 beds for patients, the old block being used for administrative purposes. The total cost of the hospital, including the equipment and wiping out of a debt of £440, was £35,285. The receipts towards that sum—including £10,000 from the British Red Cross Society and £19,000 from two garden fêtes—come to a total which leaves a balance of £2500. This sum has now been raised so that the hospital was opened free of debt.

UNIVERSITY OF MANCHESTER.—*Travelling Fellowship in Psychological Medicine.*—Through the generosity of Mr. Ernest A. Knight, hon. treasurer of the University of Manchester, a selected medical graduate will be enabled, this winter, to visit the United States. His mission will be to study and eventually to report upon the methods used in approved institutions, to investigate the part played by mental factors in the development, treatment, and cure of mental disorders. Should the University so desire, he will be required on his return to deliver an address on the subject of his investigation. The competition was open to those who had obtained or had entered upon a course for the diploma in psychological medicine of the University. It is hoped to announce the award at an early date. The purpose of the Fellowship is that of the Knight Prize, which is offered annually in the University, to encourage the study of psychological factors in the causation and cure of mental disturbances.

CANCER CAMPAIGN IN MANCHESTER.—At a public meeting held in Manchester on Oct. 23rd, called by the recently-formed Manchester Committee on Cancer, it was resolved to issue an appeal for £20,000 with which "to carry out in Manchester during the next three years an approved scheme of investigation into the disease of cancer." Dr. W. E. Gye, pathologist to the National Institute of Medical Research, was the chief speaker. The appeal was particularly directed to the commercial community to support the fund on the ground that it was one of the best investments anybody could participate in. Dr. Veitch Clark, medical officer of health tor the city, said that the committee intended to follow the meeting up by a personal appeal to all whom they thought they could approach with success; but at the same time they wanted to reach the general public and impress them with the importance and urgency of the work and the appeal. The Chairman of the Royal Infirmary Board said his board was whole-heartedly in accord with the scheme.

THE LATE DR. T. DRYSDALE.—Dr. Theodore Drysdale, of Cadogan-place, Chelsea, died on Oct. 8th, aged 45. He was born in the Central Provinces of India, and was educated in England at St. Paul's School and Jesus College, Cambridge. He received his medical training at St. George's Hospital, qualifying M.R.C.S. Eng., L.R.C.P. Lond. in 1904, and graduating M.B., Ch.B. Camb. the following year. After holding resident hospital appointments, including that of anæsthetist to the Cancer Hospital, Fulham-road, he went into partnership with the late Dr. Reid, of Sloane-square. A keen and energetic worker, he gradually built up one of the largest private practices in London, specialising to a considerable extent in midwifery. Dr. Drysdale was a prominent athlete. While at Cambridge he gained his Rowing Blue in 1902, won the Colquhoun Sculls in the same year, and obtained his Rugby Football Blue in 1900 and 1901. Throughout his professional life he "kept fit" by playing squash racquets, and represented England *v.* America at this game in 1923. A colleague writes of him: "Dr. Drysdale was a man of great personality, eminently proficient in all branches of his profession, and sound in judgment. He had little time for reading or writing, but, nevertheless, kept himself well up to date with all forms of treatment. He was competent, alert, and above all things loyal, a quality all too rare in these days. Though never in the limelight, to which he objected above all things, his loss, nevertheless, will be felt throughout London."

THE death has occurred at Edinburgh of Dr. John Robertson Henderson, C.I.E., F.R.S.E., formerly curator of the Madras Museum and professor of zoology in the Madras Christian College. Dr. Henderson was an authority on Indian crustacea and South Indian numismatics.

WEST RIDING ASSOCIATION OF EDINBURGH UNIVERSITY GRADUATES.—The annual dinner will be held at the Great Northern Hotel, Leeds, on Wednesday, Nov. 18th, at 7.15 P.M., when Mr. Alexander Miles will be the guest of the association. The dinner will be preceded by a general meeting at 6.30 P.M. Any graduate desiring information should apply to the hon. secretary, 33, Manor-row, Bradford.

NORWOOD SANATORIUM FOR THE TREATMENT OF INEBRIETY AND DRUG ADDICTION.—Dr. Francis Hare has resigned the office of medical superintendent of the Beckenham branch of this sanatorium on grounds of ill-health. His place as medical superintendent at the Mansion, Beckenham Park, Kent, will be taken by Dr. A. W. George, who has been acting as assistant to Dr. Hare. At Rendlesham Hall, the Suffolk branch of the sanatorium, there is a park of 450 acres, containing a private nine-hole golf course.

DONCASTER'S OPEN-AIR SCHOOL FOR DEFECTIVE CHILDREN.—The Doncaster Education Committee are about to build an open-air school to accommodate 240 children who are mentally or physically too backward to be taught at the ordinary schools. The children will be under the constant care of the medical officer of health. Rooms for medical examination and treatment will be provided. It is intended to provide the children with midday meals at the school. Both the back and front of the building will be completely thrown open according to the state of the weather and the direction of the wind. Heat will be radiated from the panels of the walls. The school will be provided with about three acres of garden in which the children can play and practise horticulture.

HOSPITALS AND ROAD ACCIDENTS.—In an appeal for money to reduce the debt upon the Hampstead General and North-West London Hospital, it is stated that a large number of motoring and road accidents have been treated during the last few months and that a heavy burden has thus been thrown upon the institution. Commenting upon this statement, Mr. E. W. Morris, house-governor of the London Hospital, points out that the rapidly growing number of accidents of this kind adds seriously to the difficulty of finding room there for the waiting cases, which now number 1100. Mr. Morris adds that if in cases where compensation is paid for street accidents a contribution were made to the hospitals an addition to revenue would be obtained that would enable it to meet the demands of the waiting-list. It is pointed out by a motor-car insurance company that there are occasions when insurance companies do make contributions to hospitals in consideration of their services to injured persons.

THE LATE DR. E. C. HINDE.—Eric Clark Hinde, M.B., B.S. Lond., who died on Oct. 20th at the age of 30, was educated at Bootham School, York, and entered Guy's Hospital in 1913 with a science scholarship. His studies were interrupted by a period of service with the Friends' Ambulance Unit in Flanders, when he was chiefly occupied with tracking typhoid contacts. After qualifying M.R.C.S. in 1917 he was house physician at the Queen's Hospital for Children in London, and served again in France before taking his London medical degree in 1920. He started in practice, first as assistant and then as partner, with Dr. H. T. Gillett, in Oxford, where he was anæsthetist to the Wingfield Hospital and assistant in the Throat and Ear Department of the Radcliffe Infirmary. In December, 1922, he developed laryngitis, which proved to be tuberculous, and spent the last three years in a consistent, but unavailing search for health at home and abroad. His early death removes an attractive personality and cuts short a career of considerable promise.

DONATIONS AND BEQUESTS.—Mr. James Charles Marshall, of Eastbourne, formerly chairman of Marshall and Snelgrove, Ltd., besides other bequests, gave 1000 preference shares in Debenhams, Ltd., to the Cottage Homes, Mill Hill, and 500 such shares each to Middlesex Hospital, the London Fever Hospital, and the London General Porters' Benevolent Association.—Cheques for £1000 were presented to the Lord Mayor of Liverpool from the Liverpool Fruiterers Association for the endowment of beds bearing the names of the chief magistrate and the lady mayoress in the Royal Liverpool Children's Infirmary and the Liverpool Maternity Hospital.—Mr. R. Rees Thomas, of Llanbedrog, Carnarvonshire, has sent a cheque for £1000 in aid of the extension of the Carnarvonshire and Anglesey Infirmary, Bangor.—The Manchester Royal Infirmary has received from the executors of the late Mr. W. H. Armitage a legacy of £1000, and £10,000 on account from the bequest of the late Miss Ann Russell, of Cheetham Hill. Miss Russell left the residuary portion of her estate, amounting to over £100,000, to six Manchester charities.—Mrs. Fanny Davis, Exmouth, left £500 each to Exmouth Cottage Hospital and the Devon and Exeter Dental Hospital.—In response to the Leeds University's appeal for £500,000, the first list of subscriptions includes donations and promises amounting to £115,370. Among the larger donations contributed are £20,000 from Messrs. Joshua Tetley and Son, Ltd., brewers, Leeds: £18,000 from the Clothworkers' Company, London; £10,000 from an anonymous subscriber; £5000 each from Mr. H. J. Bouring, Kirkby Lonsdale; Sir Algernon Frith, Bt., Knaresborough; and Messrs. Reckitt and Sons, Ltd., Hull; £3000 each from Messrs. E. J. Arnold and Sons, printers, Leeds; Messrs. A. W., Sir Ernest, and J. Bain; Colonel T. Walter Harding, Cowbridge; and the Misses E. G. and E. M. Lupton, Leeds; the *Daily Mail*, London, 2000 guineas.—A bazaar at Dudley, Worcestershire, promoted last June to wipe out the debt of £10,000 on the local hospitals, has had a remarkable success, as the net proceeds amounted to considerably over £14,000.

Medical Diary.

Information to be included in this column should reach us in proper form on Tuesday, and cannot appear if it reaches us later than the first post on Wednesday morning.

SOCIETIES.

ROYAL SOCIETY, Burlington House, Piccadilly, W.

THURSDAY, Nov. 5th, 4.30 P.M.—*Papers to be Read:* L. Ballif, J. F. Fulton, and E. G. T. Liddell: Observations on Spinal and Decerebrate Knee-jerks with Special Reference to their Inhibition by Single Break-Shocks (communicated by Sir Charles Sherrington, P.R.S.). K. Furusawa: Muscular Exercise, Lactic Acid, and the Supply and Utilisation of Oxygen. Part XIII. The Gaseous Exchanges of Restricted Muscular Exercise in Man (communicated by Prof. A. V. Hill). K. Furusawa: A Spirometer Method of Studying Continuously the Gaseous Metabolism of Man During and After Exercise (communicated by Prof. A. V. Hill). D. T. Harris: The Effect of Light on the Circulation (communicated by Prof. E. H. Starling. *Papers to be Read in Title only:* A. V. Hill: The Surface Tension Theory of Muscular Contraction. J. F. Fulton and E. G. T. Liddell: Electrical Responses of Extensor Muscles during Postural (Myotatic) Contraction (communicated by Sir Charles Sherrington). L. N. Katz: On the Supposed Pluri-segmental Innervation of Muscle Fibres (communicated by Prof. A. V. Hill). L. N. Katz and C. N. H. Long: Lactic Acid in Mammalian Cardiac Muscle. Part I. The Stimulation Maximum (communicated by Prof. A. V. Hill). H. J. G. Hines, L. N. Katz, and C. N. H. Long: Lactic Acid in Mammalian Cardiac Muscle. Part II. The Rigor Mortis Maximum and the Normal Glycogen Content (communicated by Prof. A. V. Hill). Phyllis Kerridge, L. N. Katz, and C. N. H. Long: Lactic Acid in Mammalian Cardiac Muscle. Part III. Changes in Hydrogen-ion Concentration (communicated by Prof. A. V. Hill). W. E. Garner: The Mechanism of Muscular Contraction (communicated by Prof. A. V. Hill). R. W. Riding and E. C. C. Baly: The Occurrence of Helium and Neon in Vacuum Tubes. O. W. Richardson: Structure in the Secondary Hydrogen Spectrum. III. T. R. Merton and J. G. Pilley: On the Excitation of the Band Spectrum of Helium. H. Hartley and J. E. Frazer: The Conductivity of Uni-univalent Salts in Methyl Alcohol at 25° C. (communicated by Prof. J. W. Nicholson). C. S. Beals: The Arc Spectrum of Palladium: its Zeeman Effect and Spectral Type (communicated by Prof. A. Fowler). N. Ahmad: Further Experiments on the Absorption and Scattering of γ Rays (communicated by Sir Ernest Rutherford). R. A. R. Tricker: A Determination of the Variation of the Mass of the Electron with Velocity, using Homogeneous β Rays. Preliminary Results (communicated by Sir Ernest Rutherford). E. H. Boomer: Experiments on the Chemical Activity of Helium (communicated by Sir Ernest Rutherford). R. M. Wilmotte: On the Construction of a Standard High Frequency Inductive Resistance and its Measurement by a Thermal Method (communicated by Sir Joseph Petavel). R. B. Brode: The Absorption' Coefficient for Slow Electrons in the Vapours of Mercury, Cadmium and Zinc (communicated by Prof. F. A. Lindemann). P. Kapitza and H. W. B. Skinner: The Zeeman Effect in Strong Magnetic Fields (communicated by Sir Ernest Rutherford). F. R. Weston: The Flame Spectra of Carbon Monoxide and Water Gas. Part II. (communicated by Prof. W. A. Bone). H. S. Hirst and E. K. Rideal: The Thermal Decomposition of Nitrogen Pentoxide at Low Pressures (communicated by Sir William Pope). R. W. Gurney: The Number of Particles in the Beta-Ray Spectra of Radium B and Radium C (communicated by Sir Ernest Rutherford),

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

Tuesday, Nov. 3rd.

ORTHOPÆDICS: at 5.30 P.M. (Cases at 5 P.M.)
Cases:
Mr. R. C. Elmslie: Unintentional Arthroplasty of Hip-joint.
Mr. St. J. D. Buxton: Charcot's Spine.
Other cases will be shown.
Specimen:
Mr. Blundell Bankart: Ovarian Carcinoma of the Scapula.

PATHOLOGY: at 8.30 P.M., at the Imperial Cancer Research Fund Laboratories, 8, Queen-square, W.C.

Wednesday, Nov. 4th.

SURGERY: at 8.30 P.M.
Discussion on
Precancerous States.
Openers:
The President (Sir Lenthal Cheatle), Mr. Sampson Handley, Dr. Sequeira, Mr. Zachary Cope.

Thursday, Nov. 5th.

OBSTETRICS AND GYNÆCOLOGY: at 8 P.M.
Specimens:
Mr. T. G. Stevens:
(1) Fibromyoma of the Uterus weighing 47 lb. 5 oz. Removal.
(2) Large Cystic Tumour of the Liver simulating an Ovarian Cyst.
Short Communication:
Dr. D. W. Roy and Dr. R. Donaldson: A Case of Early Endometrioma of the Fallopian Tube.
Dr. Wilfred Shaw: The Origin of the Lutein Cells of the Corpus Luteum.
Paper:
Mr. Victor Bonney: Myomectomy as the Operation of Election for Uterine Fibroids.

Friday, Nov. 6th

LARYNGOLOGY: at 5 P.M. (Cases at 4 P.M.)
Cases and *Specimens* will be shown by Mr. M. Vlasto, Dr. Dan McKenzie, Sir James Dundas-Grant, Dr. O. Popper, Dr. A. L. Macleod, Mr. Leslie Powell, and others.

ANÆSTHETICS: at 8.30 P.M.
Discussion on
Anæsthetics in Children, to be opened by Dr. Harold Sington.
Other Speakers:
Dr. J. Birt, Mr. Twistington Higgins, and Mr. Pitts.

STUDY OF DISEASE IN CHILDREN: Members of this Section are specially invited to attend the above meeting.

Saturday, Nov. 7th.

OTOLOGY: at 10.30 A.M. (Cases at 9.45 A.M.)
Cases will be shown by Mr. Ibbotson, Mr. Layton, Mr. Just, and others.
Paper:
Mr. A. R. Tweedie: The Otolith Reactions (with demonstration).
A discussion will follow.

ROYAL INSTITUTION, 21, Albemarle-street, W.
MONDAY, Nov. 2nd.—5 P.M., General Meeting of the Members.

ROYAL SOCIETY OF ARTS, John-street, Adelphi, W.C.
WEDNESDAY, Nov. 4th.—8.30 P.M., Sir Thomas H. Holland, F.R.S.: Inaugural Address on the Organisation of Scientific Research throughout the Empire.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION, 11, Chandos-street, Cavendish-square, W.
FRIDAY, Nov. 6th.—4.45 P.M., Dr. A. I. Simey: The Prophylaxis of the Common Cold and Febrile Catarrhs.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

ROYAL COLLEGE OF PHYSICIANS, 1, Pall Mall East, S.W.
THURSDAY, Nov. 5th.—5 P.M., Dr. E. Bramwell: The Myopathies. (Bradshaw Lecture.)

THE FELLOWSHIP OF MEDICINE AND POST-GRADUATE MEDICAL ASSOCIATION, 1, Wimpole-street, London, W.
MONDAY, Nov. 2nd, to SATURDAY, Nov. 7th.—Fellowship of Medicine Lecture, Medical Society, 11, Chandos-street. Mon., 5.30 P.M., Dr. J. Campbell McClure The Climatic Treatment of Tuberculosis.—CHELSEA HOSPITAL FOR WOMEN, Arthur-street, S.W. Post-graduate course in Gynæcology, lectures and demonstrations daily, pathology, and operations.—LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, Endsleigh-gardens. Tues. and Thurs., lecture-demonstration by Dr. G. C. Low and Dr. Manson-Bahr.—LONDON LOCK HOSPITAL, Dean-street, W. Comprehensive course. Instruction in the Out-patient Department every day and lectures.

UNIVERSITY COLLEGE, London.
MONDAY, Nov. 2nd.—5 P.M., Mr. R. J. Lythgoe: The Physiology of Hearing and Vision. Seventh lecture.
WEDNESDAY.—5 P.M., Last lecture.

ST. JOHN'S HOSPITAL, 49, Leicester-square, W.C.
TUESDAY, Nov. 3rd.—5 P.M., Dr. Knowsley Sibley: Principles of Treatment. Local.
THURSDAY, Nov. 5th.—5 P.M., Dr. A. M. H. Gray: Eruptions Due to External Irritants.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C. 1.

POST-GRADUATE COURSE: OCTOBER–NOVEMBER, 1925.
CLINICAL LECTURES AND DEMONSTRATIONS.
MONDAY, Nov. 2nd.—2 P.M., Out-patient Clinic: Dr. Hinds Howell. 3.30 P.M., Headache and its Treatment: Dr. Risien Russell.
TUESDAY, Nov. 3rd.—2 P.M., Out-patient Clinic: Dr. Walshe. 3.30 P.M., Peripheral Neuritis: Dr. Grainger Stewart.
THURSDAY, Nov. 5th.—2 P.M., Out-patient Clinic: Dr. Kinnier Wilson. 3.30 P.M., Hemiplegia: Dr. Walshe.
FRIDAY, Nov. 6th.—2 P.M., Out-patient Clinic: Dr. Adie. 3.30 P.M., Electro-therapy in Lesions of Peripheral Nerves: Dr. Bailey.
The Fee for the Course, including Pathology Lectures, is £5 5*s*. For those who hold Perpetual Tickets the fee is £3 3*s*.

COURSE OF LECTURES AND DEMONSTRATIONS ON THE PATHOLOGY OF THE NERVOUS SYSTEM.
THURSDAY, Nov. 5th.—12 noon, Acute Inflammation: Dr. J. G. Greenfield.

COURSE OF LECTURES AND DEMONSTRATIONS ON THE ANATOMY AND PHYSIOLOGY OF THE NERVOUS SYSTEM.
MONDAY, Nov. 2nd.—12 noon, The Basal Ganglia: Dr. J. L. Birley.
Dr. H. J. Macbride is giving a COURSE OF EIGHT CLINICAL DEMONSTRATIONS, chiefly on METHODS OF EXAMINATION OF THE NERVOUS SYSTEM, in the wards at 10 A.M. on Tuesdays and Fridays. The fee for this Course is £2 2*s*.
Mr. Armour and Mr. Sargent operate at the Hospital on Tuesdays and Friday mornings at 9 A.M., or at such other times as may be announced.
Any part of the Course may be taken separately. Special arrangements will be made for those unable to take the whole Course.
Fees should be paid to the Secretary of the Hospital at the Office on entering for the Course.
J. G. GREENFIELD, Dean of Medical School.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.
THURSDAY, Nov. 5th.—3 P.M., Mr. J. Howell Evans: Cases of Affections of the Breast. 4.30 P.M., Mr. W. Ibbotson: Hoarseness, its Causation, Diagnosis, and Treatment.
Daily: In-patient and Out-patient Clinics in General and Special Departments, Operations, &c.

QUEEN CHARLOTTE'S MATERNITY HOSPITAL, Marylebone-road, N.W.
THURSDAY, Nov. 5th.—5 P.M., Mr. A. W. Bourne: Common Obstetric Difficulties.

MANCHESTER ROYAL INFIRMARY POST-GRADUATE COURSE.
TUESDAY, Nov. 3rd.—4.15 P.M., Dr. D. E. Core: The Oculo-Motor Apparatus from the Physician's Point of View.
FRIDAY, Nov. 6th.—4.15 P.M., Prof. E. D. Telford: The Diagnosis of Chronic Arthritis in Children.

ANCOATS HOSPITAL POST-GRADUATE LECTURES.
THURSDAY, Nov. 5th.—4.15 P.M., Mr. H. Platt: The Treatment of Common Fractures with Practical Demonstrations.

ROYAL INSTITUTE OF PUBLIC HEALTH, 37, Russell-square, W.C.
WEDNESDAY, Nov. 4th.—4 P.M., Dr. E. Farquhar Buzzard: The Prevention and Arrest of Nervous Disease.

PEOPLE'S LEAGUE OF HEALTH, Fyvie Hall, Regent-street Polytechnic.
FRIDAY, Nov. 6th.—6 P.M., Prof. H. R. Kenwood: Hygiene.

Appointments.

GEORGE, A. W., M.D., C.M. Edin., has been appointed Resident Medical Superintendent, Norwood Sanatorium, Beckenham Park, Kent.

KIRK, Miss F. S., M.B., Ch.B. Glasg., D.P.H., to the combined post of Demonstrator in Pathology in the University of Sheffield, and Assistant Pathologist to the Jessop and Children's Hospitals.

PARRY, C. P., M.D., C.M. Edin., to be one of the Medical Referees under the Workmen's Compensation Act, 1906, for Circuit 31, the Districts of the Aberayron, Cardigan, Carmarthen, Llandilo Fawr, &c.

POLSON, C. J., M.B., Ch.B. Birm., Demonstrator of Pathology, University of Manchester.

Paddington Green Children's Hospital: DUNSTAN, C. K., M.B., Ch.M. Sydney, House Physician; MUNDELL, F. G., M.B., B.S. Durh., House Surgeon.

Certifying Surgeons under the Factory and Workshop Acts: LING, C. C., L.R.C.P. Lond., M.R.C.S. (Ramsgate); WILSON, G., M.B., C.M. Aberd. (Nairn); GABB, H.P., L.R.C.P. Lond. M.R.C.S. (Guildford); MORAN, L., M.B., B.Ch. N.U.I. (Looe).

Vacancies.

For further information refer to the advertisement columns.

Aberdeen Royal Infirmary.—Asst. S. to Ear, Nose, and Throat Dept.
Bath, Royal Mineral Water Hospital.—R.M.O. At rate of £130.
Birmingham City Hospitals for Infectious Diseases.—Sen. Asst. M.O. £400.
Birmingham General Hospital.—Asst. P.
Birmingham Union, Selly Oak Hospital—Res. Asst. M.O. £300.
Charing Cross Hospital Medical School.—Lectureship in Hygiene.
Chelsea Hospital for Women.—Anæsthetist. £21.
City of London Hospital for Diseases of the Heart, &c., Victoria Park, E.—H.P. at rate of £100.
City of London Maternity Hospital, City-road, E.C.—Obstet. S. Also Asst. Obstet. S.
Coventry and Warwickshire Hospital.—Res. Jun. H.S. £135. Also Res. H.P. £125.
Hospital for Sick Children, Great Ormond-street, W.C.—Med. Reg. and Pathologist. £300.
Infectious Hospitals Service, Metropolitan Asylums Board.—Jun. Asst. M.O. £500.
Manchester, Barnes Convalescent Hospital, Cheadle.—Res. M.O. £250.
Middlesex County Council.—Asst. M.O. £600.
Northampton General Hospital.—Hon. Asst. S.
Oxford, Radcliffe Infirmary and County Hospital.—H.P., H.S., Cas. H.S., and Obstet. H.P. All at rate of £120.
Oxford, Warneford Mental Hospital.—Asst. M.O. £250.
Queen Mary's Hospital for the East End, Stratford, E.—Hon. Asst. S.
Royal Eye Hospital, St. George's Circus, S.E.—Hon. Asst. S.
Royal Free Hospital, Gray's Inn-road, W.C.—H.P., First H.S., Second H.S. and Asst. Cas. O. Obstet. H.S., Gynæcological H.S. Also Asst. for X Ray Dept.
Royal Northern Hospital.—H.S. At rate of £70. Also Two Cas. O.'s. At rate of £90.
St. John's Hospital for Disease of the Skin, 49, Leicester-square, W.C.—Pathologist. £100.
St. Mary's Hospital for Women and Children, Plaistow, E.—Hon. Dental S.
Salford Education Committee.—Asst. Sch. M.O. £600.
Stockport Infirmary.—Third Res. M.O. £175.
Sudan Medical Service.—Three M.O.'s. £E.720.
University of London.—Associate Examiners.
Western Skin Hospital, 44, Hampstead-road, N.W.—Hon. Radiologist.
Westminster Hospital, S.W.—M.O. Two Asst. M.O.'s to X Ray Dept. Also Asst. Path.
Willesden, Park Royal Hospital, Acton Lane.—Second Asst. M.O. £400.
York Maternity Hospital.—H.S. £250.

Births, Marriages, and Deaths.

BIRTHS.

BARLOW.—On Oct. 21st, to Eileen S. P. Barlow, M.B., Ch.B., the wife of A. Malcolm Barlow, M.R.C.S., L.R.C.P.—a daughter.

CARLILL.—On Oct. 24th, at North Gate, Regent's Park, the wife of Hildred Carlill, M.D., of a son.

COATS.—On Oct. 20th, at Glasgow, the wife of Captain D. H. Coats, R.A.M.C., of a daughter.

DOHERTY.—On Oct. 20th, at a nursing home at Croydon, the wife of W. D. Doherty, M.Ch., F.R.C.S., of a daughter.

SOWRY.—On Oct. 22nd, at Newcastle, Staffs, the wife of G. H. Sowry, M.D., M.R.C.P., of a son.

MARRIAGES.

JACKSON—HADLEY.—On Oct. 21st, at St. Luke's Church, Reigate, Lawrence Nelson Jackson, M.B., to Margaret C. N. Hadley, M.B., daughter of Dr. and Mrs. Wilfred Hadley, of Reigate.

SCOTT—HEWETT.—On Oct. 17th, at St. Margaret's Church, Barking, Dr. John Murray Scott, to Valentine, third daughter of R. M. Hewett, J.P., of Roden Lodge, Barking, Essex.

DEATHS.

DUNN.—On Oct. 19th, at Mentone, suddenly, William Edward Nickolls Dunn, M.B. Lond., and Major, R.A.M.C., aged 54.

N.B.—A fee of 7s. 6d. is charged for the insertion of Notices of Births, Marriages, and Deaths.

BRADFORD'S HOSPITAL APPEAL.—Owing to trade depression, it is announced that Bradford's public appeal for £500,000 towards the erection of a new hospital to take the place of the present Royal Infirmary has been deferred. Shortly before the war a site for the new hospital was obtained and plans were prepared for a new building.

Notes, Comments, and Abstracts.

THE PREVENTION AND ARREST OF RHEUMATIC DISEASE.*

BY MATTHEW BURROW RAY, D.S.O., M.D. EDIN.,
HON. SEC., BRITISH SUBCOMMITTEE, INTERNATIONAL COMMITTEE ON RHEUMATISM.

PUBLIC attention is being increasingly focused on the serious position created by the heavy incidence of rheumatic disease in this country. Its far-reaching effects on industry have been made manifest by the publication of Report No. 23 in the series on public health and medical subjects issued last year by the Ministry of Health, entitled the Incidence of Rheumatic Diseases,[1] where it was shown that practically one-sixth of the entire sick absence in this country from all diseases was due to those classed as "rheumatic," and reports from other countries show a similar state of affairs. We may say that the problem of the incidence of rheumatic diseases is one which is seriously affecting the whole of Northern Europe. A committee on rheumatism has been appointed by the International Society of Medical Hydrology and from it a subcommittee to deal with its incidence in this country, which has for its object the formulation of a plan for concerted action in a campaign against rheumatic disability.

Nomenclature and Classification.

If we were asked for a definition of the precise meaning we are to attach to the term rheumatism or rheumatic disease, we could only say that it is a comprehensive name that is applied in an indiscriminate manner to a group of diseases which differ widely in their causation and manifestation. From a scientific point of view, therefore, the name has little to recommend it, and it has frequently been suggested that it be abolished from medical terminology altogether, or, at any rate, limited to those acute and subacute conditions known as rheumatic fever or acute and subacute rheumatism. On the other hand, it has, by reason of its long-continued use, acquired a certain meaning, and if it is regarded purely as a "clinical concept" and not as a "disease picture," its retention in the present state of our knowledge may be justified. Chronic joint changes and painful affections of the connective tissue have obviously little or no relation to those conditions known as acute and subacute rheumatism where the chief damage falls on the heart, and the arthritic changes are merely transient though doubtless very painful in some instances. Indeed, it is a common clinical observation that in the most severe forms of acute rheumatism the joints may escape altogether. We would say then that rheumatic disease appears to fall naturally into three main groups. We have those acute and subacute conditions which are classified under the heading of rheumatic fever which we should place in the first group. The second group would comprise all those painful and disabling conditions which affect the connective tissue that forms the aponeuroses and sheaths of the muscles and nerves. The third group consists of a medley of joint affections chiefly marked by their progressive nature, chronicity, and crippling effects.

These groups are further subdivided into nine subgroups as follows: Group A. (1) rheumatic fever or acute rheumatism; (2) subacute rheumatism, including rheumatic purpura. Group B. (3) muscular rheumatism, sometimes called chronic rheumatism, includes myalgia, fibrositis, pleurodynia, and torticollis; (4) lumbago; (5) sciatica and brachial neuritis. Group C. (6) rheumatoid arthritis; (7) osteo-arthritis, including malum coxæ senilis and most cases of spondylitis deformans; (8) gout, acute and chronic; (9) chronic joint change unclassifiable.

It must be clearly understood that the above is not a classification of arthritis. The whole question of the classification of the arthritides is a very vexed one.

Rheumatic Fever.

Although rheumatic fever is usually regarded as an infective disease, the causal organism has not yet been definitely identified. The disease is essentially one of temperate and humid climates and is apparently rarely found in the tropics. So far as this country is concerned the Ministry of Health point out in their report that it shows a heavy incidence in Bristol, Nottingham, and Cardiff, and a light incidence in the South-Eastern Division and Cornwall.

It is a hopeful sign that the public is beginning to recognise the devastating effect on the health of the community brought

* Abstract of an address delivered at the Royal Institute of Public Health on Oct. 21st, 1925.

[1] THE LANCET, 1924, i., 451.

about by the occurrence of rheumatic fever in early life. It must be emphasised that it is essentially a disease of childhood. We know comparatively little about its various modes of onset and also what really constitutes the disease. Too much attention is paid to the joint conditions which, from the point of view of prognosis, are of little moment. Many children have had their lives ruined by the failure to recognise the disease in the absence of joint changes.

Prevention.—The question of the prevention of acute rheumatism really resolves itself into one of early recognition of the condition. In the first place we have to learn to differentiate the type of child likely to be affected therewith. With the routine examination of all school-children there should be no difficulty in setting aside for special consideration in each school those children who exhibit signs of this diathesis. They are usually pale and anæmic and sweat readily, and careful examination will reveal the presence of small subcutaneous nodes, to which Vincent Coates and R. E. Thomas have already drawn attention. The home surroundings of such children should be specially investigated under the headings of elevation, overcrowding, dampness of house or site, amount of sunlight. It has been pretty well established that low-lying sites near rivers are particularly favourable to the incidence of this condition. Where possible, children who show tendencies to rheumatic affections should be removed to more favourable surroundings. I am quite aware that such a scheme would meet with a good deal of opposition on the part of parents, who naturally dislike to have their children sent away. This difficulty can only be overcome by the enlightenment of the public as to the danger of permanent invalidism to which these children are exposed.

In this connexion the importance of a publicity campaign with the object of educating the public in the need for a concerted effort to protect our children from the devastating effects of this disease cannot be too strongly urged. Special hospitals for the treatment of children who have had an attack of rheumatic fever should be established all over the country. These institutions would differ from the ordinary hospital in that the patients would be kept for prolonged periods. While undergoing their rest there is no reason why their education should suffer, so that these institutions would really be "school hospitals." Until a specific remedy for acute rheumatism is discovered, the best we can do is to place the sufferers under the most perfect hygienic surroundings we can devise. In the Hartfield Hospital, which is run on more or less "open air" lines, in Sussex, it is found that even under the worst climatic conditions the children improve rapidly and very few after admission develop fever and rheumatic pains.

Non-Articular Rheumatism.

This term includes muscular rheumatism, sometimes called chronic rheumatism or myalgia, fibrositis, pleurodynia, and torticollis. The Ministry place myalgia of the erector spinæ muscles (lumbago) in a class by itself as being an easily distinguishable clinical entity. The remaining subclass comprises sciatica and brachial neuritis. Now, when we speak of muscular rheumatism we are really referring to an affection of the white fibrous tissue which forms an envelope that sends its prolongations everywhere throughout the body and supplies the muscle sheaths and coverings for the tendons and aponeuroses. It acts as a supporting tissue for the blood, lymph, and nerve-supply of the body generally. It must of necessity, therefore, be intimately concerned with all the biological interchange of fluids which are continually taking place as a result of bodily activity.

Ætiology.—There are several theories as to the causation of these painful affections, but it can be shown that they largely depend on the retention in the plasma of the waste products of metabolism which interfere with the efficient removal of the products of muscular activity. Intestinal toxæmia is a fruitful source and easily explicable. Cold, especially when prolonged, is another very common cause. The incidence of a stiff neck or an attack of lumbago consequent on sitting in a draught, possibly in wet clothes, is a usual experience; heat is necessary for efficient muscular action, and the chilling of large surfaces of the skin along with its contained blood must interfere with its excretory functions. With regard to the bacteriological side of the question, it would be futile to deny that in many instances the removal of some infective foci in cases of fibrositis or muscular rheumatism has been followed by rapid improvement or a complete cure of the condition.

Prevention should obviously comprise such measures as the avoidance of prolonged surface chilling to the body—the adequate warming of work-rooms, the provision of facilities for drying clothing. Attention should be paid to housing conditions, such as dampness, low-lying situations, and the like. As the condition is, so far as I envisage it, dependent in a great measure to metabolic irregularities, due attention should be paid to the diet. A diet excessive in starch is very apt to cause intestinal fermentation, and it has been observed that patients suffering from both this condition and one which affects the joints in a manner to be described later, show a diminished sugar tolerance.

With regard to the *arrest* of the condition, the treatment is both general and local. Dietetic errors should be corrected. Where possible a course of treatment at a selected spa is, in the majority of instances, of the greatest benefit. The daily intestinal flush combined with local measure stimulates metabolism and quickly promotes a cure. Heat and massage are the most important local measures we have at our disposal for the treatment of muscular rheumatism or fibrositis. There are two objects to be kept in view, one to promote a freer lymph circulation and the other to break up the nodules. When possible a radiant heat bath should be given as a prelude to the massage. If such a bath is not available the old-fashioned hot flat-iron over a few layers of flannel is almost if not quite as effective. To promote free circulation the muscles should be kneaded with the palm of the hand the thumb being kept behind. This method is very well adapted for the neck muscles and for those in the spine and lumbar region. For the nodules, each individual one that can be felt should be treated in turn. The ball of the thumb, previously anointed with a little vaseline, should be employed. The movement should be a combination of pressing and rolling against the underlying bone if possible. Under such pressure the nodules will be felt gradually to soften and disappear. Older ones naturally take longer.

Rheumatoid Arthritis—Two Types.

Rheumatoid Arthritis, Osteo-Arthritis, Gout, and Unclassified Joint Conditions.—It is in connexion with the group of joint affections that difficulties in description chiefly arise. The task is not made any easier by the numerous attempts at classification that each observer feels himself called upon to make. Some classifications have an anatomical basis, others are based on supposed ætiological conditions, while others again are founded on a combination of the two, which only makes confusion more confounded.

Rheumatoid arthritis is an unfortunate name for the condition to which it is applied, because it lacks distinctiveness. It moreover labours under the disadvantage of being applied to what in my opinion are two distinct and separate diseases. Anatomically speaking, they have this in common—i.e., that in the early stages of the condition the changes are mainly confined to the structures round the joints, and the name "infective periarthritis" has been suggested in consequence.

The first type of rheumatoid arthritis or infective periarthritis is characterised as follows: It may be seen in an adult male or female of any age. It may commence suddenly in a large joint such as the knee or wrist, or in a smaller such as the metacarpo-phalangeal of the middle or index-finger, which become swollen and inflamed and later on become spindle shaped. There may be considerable constitutional disturbance at the onset of the condition, and it is sometimes difficult to say whether such a case at first is or is not one of subacute rheumatism or subacute rheumatic fever. The subsequent progress of the case will clear up the diagnosis, as in that the joint affections of subacute rheumatic fever rarely if ever tend to become chronic and progressive. On the other hand, in this variety of rheumatoid arthritis much permanent damage may be done. It leaves in its train wasting of muscles, ankylosis of joints, frequently with much distortion. This is the class of case, perhaps above all others, which eventually becomes a burden to the State or dependent on his friends or on charity.

With regard to the *causation* of this condition, the presence of a local focus of infection—the teeth, tonsils, or an inflamed gall-bladder or appendix—should be considered. Another contributory cause which has not received the attention it deserves is that of derangements in the circulation of the skin and periphery generally. It would appear that the importance of the skin as an organ of defence against disease is even now not fully realised. The prolonged application of cold, therefore, to the surface of the body must of necessity have a powerful effect on the functions of the skin as an excretory organ, in that toxic by-products are retained in the circulation and are thus liable to deposition in the joints, or rather round the joints. This is probably the explanation of the influence of climatic conditions on the incidence of this form of rheumatic disease. This particular type is specially prevalent in cold and humid climates. Humidity of the atmosphere alone is not sufficient. It is not nearly so prevalent in districts with a heavy rainfall and a relatively high mean temperature as in localities with a smaller rainfall but a lower mean temperature. The same explanation will apply equally well to conditions of industrial employment where the workers are exposed to a damp, cold atmosphere. It will also account for its heavy incidence in districts with a damp clay subsoil and in houses with an inefficient damp course.

Prevention.—The general lines on which preventive measures should proceed would obviously include the removal of "bearths" of infection, the avoidance as far as possible

of prolonged surface chilling, adequate provision for the drying of clothes in factories, the maintenance of an equable temperature in work-rooms. Dietetic conditions deserve more than a passing mention. There is a firmly fixed idea among the lay public that red meat is unsuitable for rheumatic cases, with the consequence that arthritics are apt to overdo the carbohydrate side of their dietary. In view of the fact that most of these people have a lowered sugar tolerance, the diet should consist as far as possible of red meat, fish, fats, green vegetables, and fruit. The vitamin-content of the food is of considerable importance. In this connexion vitamin B is essential in aiding the efficient action of the intestines. A dietary deficient in this particular vitamin is apt to induce flatulent distension and stasis, two conditions specially favourable to the formation of toxins which may eventually find their way to the joints. Among the industrial population the consumption of tinned and bottled foods is much greater that there is any necessity for. If the advantages of freshly prepared wholesome food could be brought home to many people who attempt to subsist on canned meat and vegetables, it would, to say the least of it, be all to the good.

The *treatment* or arrest of this condition, after the search for and removal of any discoverable "hearth," must be largely hydrological. Mineral waters are of great value from their flushing action, whereby intestinal toxins are swept from the system. The aim of bath treatment is to produce in the first instance an active hyperæmia. This may be induced by hot air, steam, or immersion mineral-water baths, such as brine, peat, sulphur, mud, or fango. Manipulative baths, either under water or under a douche directed on the part, are also extensively employed with the greatest success.

The other condition to which the name rheumatoid arthritis is applied occurs mainly in young women and is, perhaps, never seen in the male. We have, therefore, at the outset a distinction which should entirely separate it from the affection we have just described. Cases of this type amount to one-sixth of all those of infective periarthritis. The French regard this disease as a tuberculous manifestation, and other observers ascribe a neurotrophic origin for it. It has a special prevalence among young women who follow an indoor occupation, dressmakers, school teachers, and the like. It commences slowly and insidiously, attacking the smaller joints of the fingers, the metacarpophalangeal, or the mid-phalangeal joints. It is symmetrical and centripetal, involving the wrists and ankles after the toes and fingers. The temporo-maxillary joint is frequently affected. There may be associated nervous conditions such as sweating, glazing of the skin, with atrophy of muscle and bone. The removal of a supposed focal infection does not appear to arrest the disease. Sufferers from this condition show all the signs of a profound metabolic upset. They are pale and anæmic, their circulation is feeble, and trophic changes are common. It is a progressive disease. Ankylosis does not always occur, but subluxation and distortion of the finger-joints are extremely common, and the patients are very neurotic.

Every possible measure that can be devised in the way of building up the constitution and increasing the resistance of the patient must be tried. A course of arsenical waters have repeatedly been found to be of great benefit. The patients must be removed from unhygienic surroundings and placed where they will get plenty of fresh air and sunshine. Treatment by the ultra-violet rays has shown encouraging results, but it is perhaps early to speak very definitely on this point.

Osteo-Arthritis.

This condition has not the same climatological and geographical limitations as the others.

Evidences of osteo-arthritis are found in the skeletons of man and even in prehistoric animals all over the world, and are especially well seen among the bones of ancient Egyptians in various museums. Timbrell Fisher points out that in osteo-arthritis we are faced with a borderland between a frankly inflammatory condition and a neoplasm of the joint structure. He further shows that a striking feature which distinguishes the disease from the more acute and probable infective group of conditions known as rheumatoid arthritis is the almost invariable absence of small cell infiltration.

Osteo-arthritis is gradual in its onset, and is more prevalent in the later decades of life. It is as often as not monarticular and one of the larger joints is usually affected, the hip, knee, or shoulder probably most frequently. Although it usually becomes more or less concentrated in one joint, X ray photographs will often demonstrate an earlier condition in some of the other joints. This condition is very frequently associated with arterio-sclerosis and high blood pressure. The sufferers are usually well-nourished and present quite a different appearance to those suffering from infective periarthritis. One can often form a shrewd idea as to the condition by the first look at the patient before proceeding to the examination of the joints.

Ætiology.—Opinions differ as to the precise ætiology of this disease. There are those who say it is due to a low form of septic infection occurring in the intestinal tract or bladder. Personally, I am not inclined to this view. I have seen a certain amount of improvement follow the removal of an obvious septic focus, but I do not think such focus was a direct cause of the condition. In a great number of cases a history of a strain or injury to the joint, often years previously, can be obtained. The injury in the first place lowers the resistance in the joint and toxins, probably metabolic in origin, find their way to the site of lowered resistance, with the result that the familiar train of symptoms ensues.

Prevention.—The avoidance of metabolic errors, even though a counsel of perfection, would seem to be one of the chief points with regard to the prevention of the condition.

Treatment.—These cases derive great benefit from spa treatment. This is proved by the fact that they return again and again to the spa of their choice. The internal administration of the various aperient waters, saline and sulphur, reduces weight, lowers blood pressure, and corrects faulty metabolism. The local treatment that they undergo improves the condition of the skin and aids in the elimination of toxins. Manipulative douches improve the condition of the muscles round the joints. It is perhaps here that we should utter a word of caution as to the manipulative treatment of the stiff joints. Too vigorous movements and attempts to move fixed joints may do more harm than good. The masseur should confine his attention to the structures round the joint and leave the joint itself alone. Where there is much pain, local applications of steam, hot water, and peat are most comforting.

Acute and chronic gout are included in the Ministry's list of rheumatic disease owing to the difficulty in distinguishing some forms of chronic gout from osteo-arthritis.

Villous arthritis consists, as its name implies, of a chronic villous thickening of the synovial membranes of the larger joints. The knee is perhaps the one most commonly affected. It may be found in the hip and shoulder. It is very common in women about the time of the menopause, and is easily discoverable by palpating the moving joint when a curious soft crepitus will be heard or felt. The thickened synovial membrane can be distinctly felt bulging out from the joint. It is often associated with incipient flat-foot, which in its turn may have been induced by the increase in body-weight.

The treatment is: (1) General: reducing the obesity by suitable mineral waters and attention to the general health. (2) Local: attending to any deformity of the feet by ordering suitable shoes or instep supports. Steam baths, massage, douche, or local douches with manipulation are useful. These are the cases that the cautious exhibition of thyroid extract benefit so markedly. They mostly show slight evidences of hypothyroidism.

Conclusion.

With the exception of the group comprising acute and subacute rheumatism, the employment of baths and water of various kinds occupy a large place in treatment. The majority of these baths are only obtainable at the spas. Those sufferers from rheumatic disease who can afford a three weeks' stay at one or other spa find no difficulty in obtaining them. Insured persons to the number of 370,000 seek advice every year for one or other form of rheumatic disease. The spa hospitals at Bath, Buxton, and Harrogate can only accommodate all told 5000 each year. Not by any means all the patients who seek advice need spa treatment, but a good many more need it than get it; it is obvious, therefore, that increased accommodation is urgently needed at the spas. There is also the urgent need for the provision in London and the larger centres of population of baths and other remedial measures. Many baths and douches of the highest therapeutic value can quite well be given with an ordinary water-supply. Mud or peat can be procured and used as packs. Vapour and hot air baths are quite easy on installation. These proposed remedial institutions should work in liaison with the spas, and would be the "clearing stations" to select cases suitable for spa treatment. A great many cases are sent to spas that are utterly past praying for. It is in the early stages of the malady that physical treatment is most valuable. Lastly, these central institutions would be the headquarters of research. A vast amount of research work is waiting to be done, and up to the present the fringe has hardly been touched. Well-equipped laboratories are already installed at Bath, Buxton, and Harrogate. London and the larger towns are lamentably deficient in such facilities. The expenditure of capital in the provision of facilities for combined research and treatment would well repay the outlay, for the two million pounds at present paid out annually in "benefits" is only a subsistence allowance. Not one penny of it can be regarded as being spent in treatment. There can be no doubt that once the sad situation of this multitude of sufferers from rheumatic diseases was fully realised, means would be quickly forthcoming to relieve their necessities.

PUBLIC HEALTH IN THE UNITED PROVINCES OF AGRA AND OUDH.

THE population of these provinces, according to the 1921 census, was 45,375,787, being less than that of the 1911 census (46,805,913) owing to territorial changes. The vital statistics have been calculated on the 1921 figures, but "the estimated population, worked out up to the half-year ending June, 1923, shows a further increase of 353,737 over the 1911 census figure."

Vital Statistics.

The recorded birth-rate for the Province in 1923 was 36·04 per 1000, as compared with 32·17 in 1922 and 34·88 for the preceding quinquennium. There was marked variation in the different districts, the ratios ranging from 25·47 in Rae Bareli (Lucknow division) and 25·76 in Gonda (Fyzabad division) to 47·27 in Pilibhit, 47·61 in Moradabad, and 49·24 in Bijnor (all in Rohilkhand division). The death-rate was 23·37, as compared with 25·01 in the preceding year, and 45·17 in the quinquennium, the ratios varying from 12·78 in Gonda district (Fyzabad division) and 14·12 in Rae Bareli (Lucknow), to 35·37 in Jhansi and 38·59 in Hamizpur (both in Jhansi division). It is stated (p. 3) that 13,106 births were returned in "notified areas," also that 9793 deaths occurred in these "areas"; but it is not explained what constitutes a notified area, or in what way they differ from the official "districts." The infantile mortality for the Province was 169·37 per 1000 births, a further reduction on 183·8 in 1922, 236·5 in 1921, and 232·3, the decennial average (1911–20); in the urban areas the ratio was 263·91, and in the rural tracts 160·77, as compared with 254·83 and 177·33 in the preceding year. The general mortality in the rural tracts was 22·48, and in urban areas 35·86, as compared with 24·45 and 32·93 in 1922, and 44·86 and 49·07 respectively for the preceding quinquennium.

Epidemic Disease.

Cholera caused 2591 deaths, giving a ratio of 0·06 per 1000, as compared with 0·05 in 1922 and 1·56 for the quinquennium; only five deaths from this cause were registered in the four districts composing Jhansi division (including towns and rural areas), with a total population of 2,065,297, too small a number to yield a ratio of 0·01 per 1000; the highest mortality ratios occurred in Ballia district of Benares division (0·62 per 1000); Naini Tal (0·43), and Aligarh (0·32). For the Provinces as a whole the cholera mortality in rural areas was 0·05, and for the towns 0·17 per 1000; in the former the highest ratios were 0·56 per 1000 in Ballia and 0·45 in Naini Tal; and for the latter 5·40 in Firozabad (Agra district) and 3·40 in Ballia. There was a considerable increase in the small-pox mortality, 747 deaths, as compared with 242 in the previous year (stated as 0·02 per 1000 and 0·01 respectively), but still much below the quinquennial average (0·09); seven districts were entirely free from the disease. In the towns the death-rate was 0·16, and in the rural tracts 0·01; Allahabad district suffered most, with 228 deaths (0·16 per 1000), 174 occurring in children under 10 years of age. Plague also showed a considerable increase, 74,187 deaths, giving a mortality of 1·63 per 1000, against 0·51 in the preceding year, and 1·13 for the quinquennium. Kumaon division (Naini Tal, Almora and Garhwal districts) was entirely free, also ten other districts in various parts of the Province; in Azamgarh district of Gorakhpur division there were 21,227 plague deaths (13·89 per 1000), of which 20,720 occurred in the four months, January to April inclusive. "The attitude of the people towards inoculation was on the whole satisfactory. They realised its value as a preventive measure, but did not volunteer until the disease was actually raging in their villages." The total inoculations numbered 62,615; particulars are furnished as to 5412 persons inoculated, compared with 105,824 not so treated in several districts of the Province; of the latter number 1497 died in the selected areas examined; while of the 5412 inoculated only 4 died. Evacuation was carried out in most districts on the appearance of the disease without any opposition.

Dispensaries and District Boards.

Unfortunately the travelling dispensaries have been reduced from 112 to 45, apparently for financial reasons. Six district boards, Almora, Bulandshahr, Kheri, Gonda, Bahraich, and Gorakhpur have, however, resolved to support them by contributing Rs.1000 per dispensary, the rest of the cost being provided by the Government. During the period under report 1,411,775 patients were treated, and 23,309 operations were performed at these dispensaries throughout the Province. "It is hoped that the experience of one year without them will induce the boards to reconstitute them next year." The district health scheme experimentally introduced in the districts of Gorakhpur and Basti in 1922 was extended to Azamgarh in 1923; instruction was given and hygiene propaganda carried on by lantern demonstrations, lectures to teachers, and articles in the local papers, with good results; owing to financial stringency the extension has been retarded, but it is hoped that it will be resumed as funds permit. "As many as ten municipal boards have not yet appointed medical officers of health on the ground of paucity of funds. It is essential to the welfare of the whole community that towns as large as these should have a properly organised health service. In other civilised countries local bodies of this size, and even of much smaller size are bound by law to employ M.O.H. and sanitary inspectors in adequate numbers." It is time for the United Provinces "to fall into line with other countries in this respect." Moreover, preventive medicine pays, as has been proved over and over again.

PRIMITIVE MORALS.

Mr. B. Malinowski, D.Sc., reader in social anthropology at the University of London, in an address on the Contributions of Anthropology to Social Hygiene, delivered recently at King's College, London, under the auspices of the British Social Hygiene Council, reopened some of the most debatable questions of primitive sexual sociology. On the whole supporting the views of Darwin and Westermarck that monogamous marriage and family existed from the beginning of humanity, the lecturer pointed out that while problems of origins and development were of a merely antiquarian interest, the study of cultural function and aim was of practical importance.

Dr. Malinowski proceeded to show by an extensive examination of anthropological evidence, as well as drawing upon his own researches among Melanesian and Papuan tribes, that propagation, training of the young, as well as the satisfaction of full sexual love, were always fulfilled within the family and the individual marriage. Licence occurred in a number of savage tribes, though by no means in all. It was found either in the form of prenuptial freedom, when it played an important part in effecting the selection of a proper mate by the method of trial and error. It acted also as a safety-valve by which the unruly passions of youth are allowed to find a natural vent. Marriage and the family were never really obliterated or overridden by it. Dr. Malinowski analysed from the same point of view the occasional outbreaks of customary licence in orgiastic feasts, in magical or religious ceremonies, in seasonal relaxations of sexual restraint, explaining their occurrence by their cultural utility at a low level of development. Anthropology would advocate early marriages, equal rights for man and woman, a wise reconsideration of the divorce laws, and an equal moral measure for both sexes. Prostitution, with its concomitants of crime, degradation, disease, and disgenics appeared to the anthropologist as the greatest evil of modern culture. Prostitution placed us morally below the savage. The real problem was how to combine a full life for man and woman with a high moral standard. Good family life and a happy marriage could not be divorced from one another. They could not be achieved by a mere propaganda of continence, but rather by the ideal of an intimate association between the satisfaction of instinct on the one hand and the full expression of love and affection on the other. Physical intimacy without spiritual passion was degrading, while mere mortification of the flesh was in most human beings unnecessary.

EFFICIENCY OF MERCURY-VAPOUR LAMPS.

WE have received from Dr. Frederick W. Alexander, medical officer of health for the Borough of Poplar, a special report issued by him on methods of gauging the intensity of ultra-violet rays from artificial sunlight lamps. The booklet is entitled Practical Artificial Light Treatment, and may be obtained from the Public Health Offices, Bow-road, E. 3. Dr. Alexander says that as the ultra-violet radiations from quartz mercury-vapour lamps begin to fall off from the first day they are brought into use, it is most desirable to have a simple means of measuring their efficiency. Brilliancy is not a reliable guide. After referring to the erythema-dosimeter and the acetone methylene-blue gauge and the views of Dr. A. Eidinow and Dr. Leonard Hill (THE LANCET, 1925, ii., 317), he describes a simple apparatus for daily use which depends on the production of fluorescence on a uranium screen by ultra-violet rays which have passed through a Chance filter. He also records results of exposing photographic printing-paper to the rays of a standard lamp when different filtering media are employed. The results obtained with a lamp to be tested may be compared with the standard.

Messrs. Bengue and Co., manufacturing chemists, have changed their address to 24, Fitzroy-street, London, W. 1.

Mr. F. C. Goodenough, chairman of Barclay's Bank, last week unveiled a brass tablet over the bed in the Burdett Ward of Westminster Hospital, which has been endowed with the proceeds of a concert given last April at the Albert Hall by the male voice choir of the bank.